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ABSTRACT

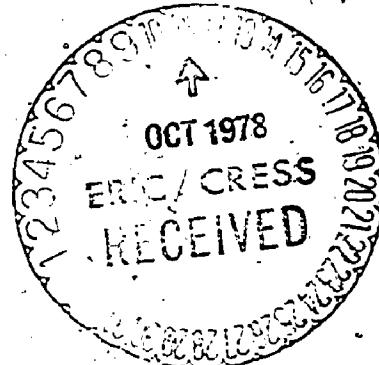
Alternative methods for taxing the mineral industry at the State level include four types of taxes: the ad valorem tax, severance tax, gross production tax, and net production tax. An ad valorem tax is a property tax levied on a mineral deposit's assessed value and due whether the deposit is being worked or not. The severance tax is usually an exise tax paid by the producer for the privilege of extracting resources from the soil. The gross production tax is almost identical to the severance tax, but is based on a percentage of the dollar value of the ore extracted rather than a fixed amount per ton. The net production tax is also similar, but is more closely related to a net income tax because companies are allowed to deduct some expenses from gross revenues in order to define net taxable production. This document compares the four kinds of taxes on the basis of ease of administration, social justice, consistency with national economic goals, and revenue adequacy. It cites the severance tax and gross production tax as appearing to provide the best vehicles for taxing mineral activity. Because the construction and development phase of a mine causes financial strain for a community in providing new services (e.g., schools and expanded water and sewer systems) before new tax revenues become available, discussion is given to programs by Montana, North Dakota, Utah, and Wyoming to reduce the fiscal impact of new mineral development. An overview of mineral tax laws in each of the 25 major mineral producing states is also given. (DS)

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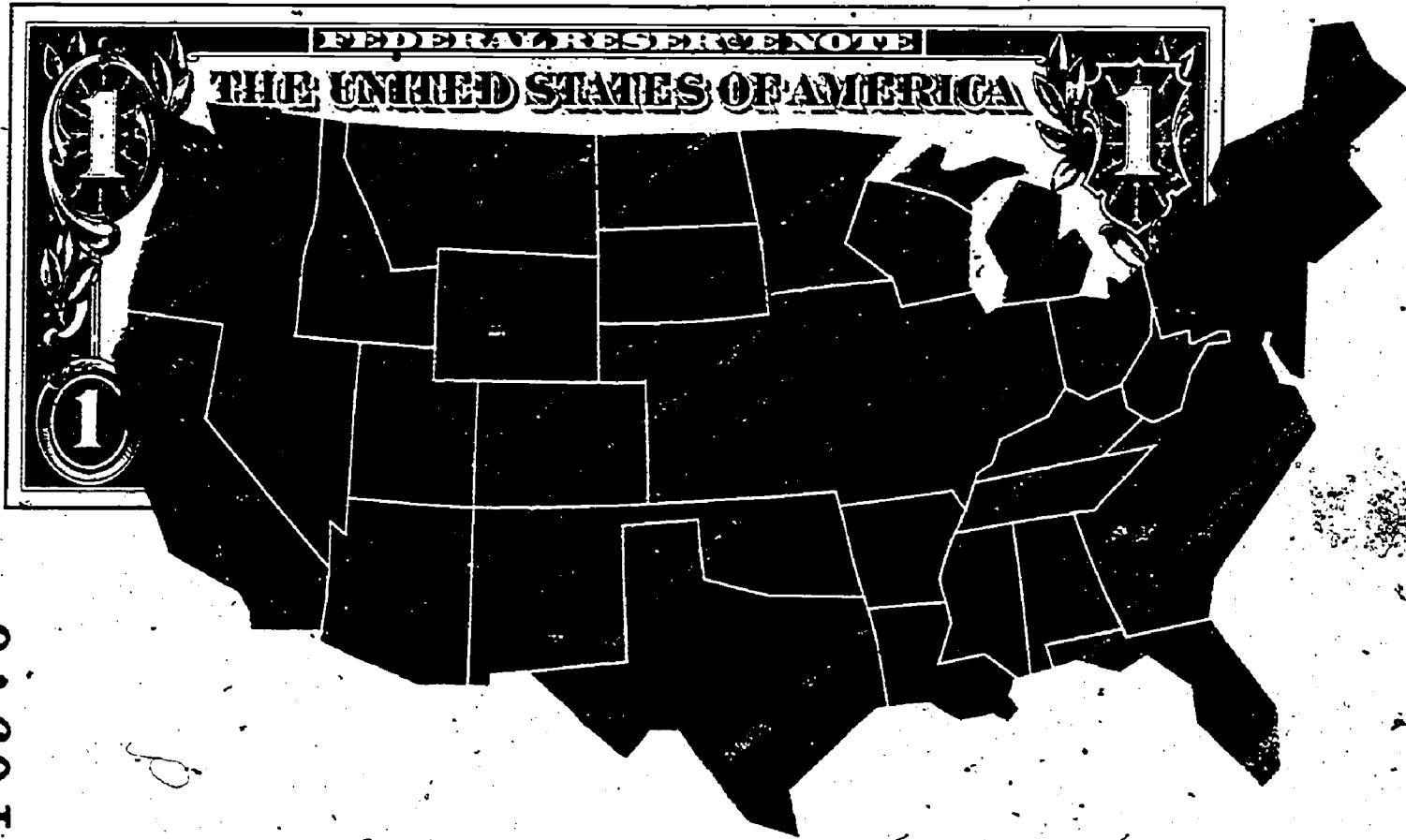


State Taxation of Mineral Deposits and Production

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Report No. 2



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STATE TAXATION OF MINERAL DEPOSITS AND PRODUCTION by Thomas F. Stinson.
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ABSTRACT

Four alternative ways of taxing minerals--ad valorem taxes, gross proceeds taxes, net proceeds taxes, and severance taxes--are described and evaluated. Taxes are compared on the bases of ease of administration, social justice, consistency with national economic goals, and revenue adequacy. The gross production tax and the severance tax are the most desirable, with the gross production tax preferred except when the market price of the mineral is difficult to establish. The report also provides summaries of the mineral tax laws as of January 1978 for each of the major mineral-producing States.

Keywords: Taxes, local government, economic development, minerals, mineral production, State laws.

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FOREWORD

As the coal resources of the northern Great Plains are developed, new demands are placed on the economic systems of the communities in the region. Labor will be required for the mines and the conversion facilities. Service capabilities for both the mining and the added population follow in and around the development. The additional cost of community facilities and their operation are provided through tax revenues. The fiscal impact is the comparison of revenue and expenditure flows over time as local communities respond to resource development.

This report is part of an intensive study by the Economics, Statistics, and Cooperatives Service of methods of estimating population, employment, incomes, and the net fiscal impacts of coal development in the rural communities of the northern Great Plains. It updates an earlier report published by the Environmental Protection Agency.

This study provides an overview of mineral taxation in each of the major mineral-producing States, information useful to States considering revision of their mineral tax systems. These summaries, however, cannot substitute for careful reading of each statute. Taxpayers who want to know the detail of the law in their State are urged to consult State or local tax officials. Summarizing legislation of so many States is difficult; errors of omission may have occurred. The author will appreciate having these called to his attention.

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SUMMARY

Development of energy resources in the more rural Western States is likely to create severe financial problems for some State and local governments. This new economic activity, with population migration and greater demand for public services, will generate a need for more government revenues. Increased use of mineral taxation is one way to finance new services without increasing the tax burden on the area's existing residents.

Four mineral taxes--ad valorem, severance, gross production, and net production--are described and evaluated. Taxes are compared on the bases of ease of administration, social justice, consistency with national economic goals, and revenue adequacy. The gross production tax and the severance tax are the most desirable, with the gross production tax preferred except when the market price of the mineral is difficult to establish.

Since mine construction or development can take several years, any tax based on the output of the mine makes no contribution to government revenues until after the need for new services has arisen. Many local governments face this front-end financing problem. No tax analyzed, with the possible exception of the ad valorem tax, treats this problem satisfactorily.

Some States have enacted special programs designed to ease the front-end problem. Programs in Montana, North Dakota, Utah, and Wyoming are discussed. These programs are new and their impact is not evaluated. They may, however, underestimate the size of the front-end problem.

Most major mineral-producing States have a special tax system for mines and mineral production. Summaries of the applicable State laws are provided.

STATE TAXATION OF MINERAL DEPOSITS AND PRODUCTION

by

Thomas F. Stinson*

INTRODUCTION

This report examines alternative methods for taxing the mineral industry at the State level. Special attention is paid to the taxation of coal. Since their problems are similar, however, all minerals are considered. The first section summarizes four different ways of taxing minerals--ad valorem taxes, severances taxes, and gross and net production taxes--and the advantages of each. The second section considers special programs designed to minimize the front-end load problem. The conclusion provides specific details of mineral tax laws in each of the major mineral-producing States.

State mineral taxes are receiving a surprising amount of attention. Fourteen States modified their mineral tax systems during 1977 and 1978, and more changes will probably occur during the 1979 legislative sessions. Changing energy prices, as well as projected increases in the consumption and production of coal (especially Western low-sulfur coal) appear to be major factors contributing to this interest.

Much of the new coal production will come from mines in sparsely populated areas. The northern Great Plains States--North Dakota, Montana, and Wyoming--will see especially large increases in production since they contain a large proportion of the Nation's reserves of low-sulfur coal. These States and their agriculturally based economies are likely to undergo major structural changes due to energy development. Small towns will feel the greatest impact, with developments that would have little impact on a city of 25,000 forcing major changes in the underlying social and economic structures of the smaller communities.

It is important to consider whether the needed expansion in services can be financed from local sources without increasing the tax burden on the area's existing residents. Systems of financing and delivering local public services in rural areas are closely interrelated; a change in the amount of services has an immediate impact on the tax bills of all the community's residents. Since agricultural land presently comprises much of the tax base in these

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¹See, for example, the discussion in Northern Great Plains Resources Program, Effects of Development in the Northern Great Plains, Part V, April 1975, or Roger L. Hayen and Gary L. Watts, A Description of Potential Socioeconomic Impacts from Energy Related Developments in Campbell County, Wyoming, U.S. Dept. of Interior, Office of Minerals Policy Development, Washington, D.C.

areas, any change in the quantity or quality of local government services provided will also have an effect on local farmers and ranchers.

The immediate need for new services may outstrip the locality's ability to finance them until the new mine or plant comes into full production; this is the so-called front-end problem. Since it takes up to 3 years to ready a coal mine for operation, there is more than a temporary imbalance in local revenues and expenditures, especially since many State constitutions set limits on local millages and prohibit bonding for operating expenditures. Unless some way is found to balance the revenues and expenditures necessitated by the new industry, permanent residents of the community may see a significant increase in their tax bills while the mine is being developed.

EVALUATING ALTERNATIVE MINERAL TAXES

Any discussion of the relative merits of different types of taxes must begin by outlining the criteria to be used for evaluation. Here, criteria suggested by Walter Heller² are used. Mineral taxes are compared on the bases of ease of administration, social justice, consistency with economic goals, and revenue adequacy. These are by no means the only criteria that might have been used to evaluate alternative types of taxes, but they highlight clearly the differences between the different mineral taxes.

As with any set of criteria, some explanation and clarification of terms is necessary. Social justice is used to mean adherence to basic equity considerations, among which are included the standard issues of horizontal and vertical equity--equal treatment of equals and consistent treatment of unequals--as well as questions of intergenerational equity and interregional equity. How well the alternative taxes compare with respect to the ability to pay and the benefit principles will also be discussed.

Consistency with national economic goals also needs elaboration. There are many national economic goals--full employment, stable prices, and steady economic growth--to name the three most commonly agreed upon. However, it is unlikely that alternative mineral taxes will have an appreciably different effect on any of these goals. This report focuses on the Nation's economic goals with respect to resource use, an area in which mineral taxation can have an impact. This paper assumes that our national goal is to maximize the benefit that can be derived from our existing stock of resources. This is not the same as maximizing production from the resource in any particular year, or artificially lengthening the recovery period. Instead, the rate of recovery from the mineral deposit and the total amount mined should be determined by existing market conditions and technology, not by the particular form of taxation used in the area. The ideal is a tax that is neutral with respect to the amount of the resource to be extracted and the recovery rate.

In this study, the effects of alternative taxes on mineral production are compared in a static, partial equilibrium framework. That is, reinvestment is

²Walter W. Heller, "Taxation," Encyclopaedia Britannica, 1964.

impossible and the entrepreneur is assumed to be a profit maximizer who bases decisions only on his production function and the prices of all inputs and outputs. Dynamic and general equilibrium implications are dismissed by assuming that a tax equivalent to that levied on the mining firms is levied on the other sectors of the economy. If such a tax did not exist, or if mining were taxed at a greater rate than other activity, any mineral tax would decrease the number of mines in operation and reduce the output per mine when compared to the no tax situation. These results hold for the imposition of any form of tax on mining which is not accompanied by an equivalent tax on the other sectors of the economy.

The Ad Valorem Property Tax

Mineral property was first taxed by the ad valorem property tax. Mines were treated the same as all other industries, and no special taxes were levied on either the physical product or the value of the product of the mine. Depending on the State's procedures, either a county or a State assessor would examine the deposit and place a value on it for tax purposes. Then, the local millage rate was applied to the assessed value and the firm's tax levy determined. The taxes levied on a mine depended only on its assessed value and the local millage rate, and they were levied whether the mineral deposit was being worked or not. Today, several major mineral-producing States, including Pennsylvania and Illinois, still rely on ad valorem taxes as their principal means of taxing mines.

As the revenue needs of State and local governments grew, and as State tax systems became more complex, the tax treatment of the mineral industry came under considerable scrutiny. The ad valorem tax, although producing sufficient revenue for most local communities, had a number of critics. Most of these criticisms were focused on three areas--ease of administration, social justice, and consistency with national economic goals.

Ease of Administration

The administrative difficulties of the ad valorem tax were probably most responsible for the decline in its use. Under any ad valorem tax, the assessment process is the key to gaining equitable treatment for all taxpayers. But, estimating the value of a mineral deposit is not easy, even for trained mineral experts. For local assessors, it is almost impossible. Wide variations in local assessment practices and in the ratio of assessed to true value made the tax questionable on grounds of equity; many felt that almost any other system of taxing mineral property would be better from an administrative standpoint.

Accurately assessing mineral property is difficult for several reasons. First, the assessor normally does not have comparative sales data available for use in determining the mine's fair market price. Thus, he must appraise the property using an alternative method. And, while the value of a claim certainly depends on both the size and the richness of the deposit, detailed information on those characteristics usually is not available to local

assessors. The assessor's problems are further complicated by the fact that the deposit is underground and hidden from view. The volatility of mineral prices, the unpredictability of future extraction costs, and the partial dependency of mine output on capital investment in the mine make accurate assessment even more difficult. These problems led the States to move gradually toward using net income or net profit as the basis for assessing the value of mineral property.³

Social Justice

Although much of the criticism of the tax on social justice grounds is based on problems that could be remedied with better assessment procedures, some real inequities exist. Perhaps the most important from the national point of view is the interregional inequity. A single rich mine in a sparsely populated area might well provide a major proportion of the tax base in the taxing district. If this were the only mine open in the area, its tax bill could be significantly greater than if the mine were located in a region with more mining enterprises. Similarly, the location of other economic activity in the same area as the mine may have a significant impact on the tax bill which the mine pays. There seems to be no justification for the mine's tax bill to depend on the amount of other development in the area.

The natural heritage issue is a second concern. Some argue that a mineral deposit is a gift of nature to the people and that they deserve some rent or compensation for the asset.⁴ This argument has considerable popular appeal. What most desire is for the State to receive a share of the excess profit or rent that the owner of the resource obtains and to return it to the citizens. Those making this argument are not really arguing against the ad valorem tax; instead, they argue for increasing the total tax burden on minerals. A property classification system in which mineral property is assessed at a higher rate than other types of property will accomplish the same objective within the property tax framework.

As with most equity arguments, there is really no way to evaluate the natural heritage argument in terms of right or wrong. While there is some intuitive appeal to allowing the State to extract some of the rent from mineral land, holders of mineral rights correctly point out that owners of other "gifts of nature," such as fertile land, are not taxed on the rent they receive. There is really very little that economics can say about the merits of the argument. Instead, it is a decision more properly made through the governmental decision-making process. Accepting or rejecting the natural heritage argument does not force one to choose a particular tax system.

³G. Howard Spaeth, "Iron Ore Taxation in Minnesota," Proceedings, National Tax Association, 1948, pp. 230-243, gives a more complete description of the process.

⁴The Report of the Governor's Minnesota Tax Study Commission, 1956, pp. 324-326.

Consistency with National Goals

The ad valorem tax is also said to be inconsistent with the national goal of maximizing the use of available resources.⁵ Since the tax comes due whether the deposit is being worked or not, a profit-maximizing producer will accelerate his recovery rate on each deposit in order to minimize his total tax bill. The sooner the deposit is depleted, of course, the sooner the taxes will be reduced. Under a system of ad valorem taxes, two identical mineral deposits, one developed and mined out 5 years after discovery and one mined at a slower rate for 10 years, will pay considerably different amounts of taxes over the life of the deposit. Such a system of taxation provides a strong economic incentive for developing the mineral property and extracting the minerals as soon as possible after the discovery is made known and added to the tax rolls.

The increased recovery rate contributes to an accelerated depletion of the mineral deposit in the following way. Because there is an incentive to increase production from each mine, supplies of the mineral are larger than would otherwise be the case. As a result of this excess supply, the price drops, which in turn produces two effects. First, consumption of the mineral increases or proceeds at a more rapid rate because of the lower price. Second, and perhaps more important, the cutoff grade for the ore to be mined is raised, reducing the amount of economically feasible ore available, because ore of lesser value than the cutoff grade will not be mined. Since there are large startup costs involved, substantially higher prices will be necessary before it becomes economically feasible to reopen a mine--prices higher than might be expected in the future. Although the lower-grade ore is not lost, the economics of the mine make it highly unlikely that those minerals will be used. The ad valorem tax then works against the country's best interests in preserving or making maximum use of our national resources.

Revenue Adequacy

In terms of revenue adequacy, the major complaint has been that the ad valorem tax works too well. In the iron range communities of northern Minnesota, for example, the ad valorem tax produced so much revenue at so little cost to the residents of the community that the State government eventually was forced to place a ceiling on increases in local per capita expenditures. Without such a limit, local government expenditures in that area would have become completely distorted from those in the rest of the State.⁶

Unlike the other taxes to be discussed, the ad valorem tax has no problems in matching the revenue flow with the need for services. The front-end load problem is minimized because the mine property has the same value whether the mine is in operation or being developed, assuming proper assess-

⁵Harold Groves, Financing Government, 5th Ed., Holt and Co., New York, 1958, pp. 314-317.

⁶The Report of the Governor's Minnesota Tax Study Commission, 1956, p. 327.

ment. Consequently, sufficient revenues should be available to the local governments during the construction phase to meet all increased demands for services. Revenue adequacy is one of the major problems facing the other mineral taxes which are more acceptable on the grounds of administrative convenience, consistency with national economic goals, and social justice.

Summary

Strong objections exist to the use of an ad valorem mineral tax due to its administrative problems and its implications for the rate of resource depletion. Despite these problems, several States continue to use the ad valorem tax as their primary source of mineral tax revenues, since the revenues associated with it are more certain than those from a severance tax or a production tax.

The Severance Tax

Michigan became the first State to impose a tax other than an ad valorem levy on mineral property when it imposed a severance tax in 1846. Others followed and by 1910 seven States had some form of a severance tax.⁷ In most States, however, the severance tax was seen as a way of encouraging the development of the State's mineral resources, not as a way of increasing the tax revenue from mineral property or of taxing mines more equitably.

Twenty-nine States have some special taxes on minerals. In 10 of these States, that tax is levied in lieu of all other ad valorem taxes. In the other 19, however, some ad valorem taxes are levied at either the State or local level. Normally, the courts treat the severance tax as an excise tax paid by producers for the privilege of extracting resources from the soil of the State. Consequently, since severance taxes are not usually considered to be property taxes, they are not held to be subject to constitutional restrictions applicable to property taxes such as millage limits and uniformity provisions. In addition, since they are not property taxes, it is not normally considered to be double taxation when they are imposed in addition to an ad valorem tax.

In this report, three distinct types of severance taxes will be discussed. The first is the "true" severance tax, which is levied at a set amount per unit amount produced. The others are gross and net production taxes.⁸

⁷ Financing Government in Colorado, 1959, Report of the Governor's Study Group, p. 351.

⁸ The distinction made here between severance taxes and gross and net production taxes is not always made at the State level. For example, Montana's tax on oil and gas is officially titled the Oil and Gas Producers Severance Tax even though its base is the gross value of petroleum extracted. Under the classification system used in this paper, such a tax would be considered a gross production tax.

Ease of Administration

The "true" severance tax is not tied to the value of the product mined. Instead, it is levied according to a rate schedule based on the amount the mine produces. This greatly simplifies tax administration compared to the ad valorem tax. Now, all the State revenue department needs to know is the number of tons mined during the year, a figure which is much easier to obtain and verify than the total value of the deposit, the figure needed for ad valorem tax purposes. For administrative convenience the severance tax is a noticeable improvement over the ad valorem tax.

Social Justice

On social justice grounds the severance tax appears superior to the ad valorem tax. Each ton of mineral extracted is taxed an identical amount, no matter where in the State the mine is located. With a severance tax the owner of a mine located in the same taxing district as other economic activity receives no tax advantages, and production decisions between mines are not influenced by the relative property tax rates in different locations. This is clearly an improvement over the situation under an ad valorem tax where the economic feasibility of a mine can be affected by size of the tax base in the surrounding district.

Taxes may also be evaluated on their consistency with the taxpayer's ability to pay. The ad valorem system fails in this respect since taxes are levied and become due whether the deposit is being mined or not. The severance tax offers some improvement since the taxes are due only when the mine is actually in operation. However, since the tax is based on the physical units of production rather than a measure of profitability, some ability to pay problems remain. Specifically, if mineral deposits throughout the State are not of equal quality, a severance tax violates the ability to pay criterion by taxing the less profitable mine at a higher percentage rate than the more profitable one. In general, however, the severance tax is an improvement over an ad valorem tax with respect to social justice.

Consistency with National Goals

Since the severance tax offers no tax incentives for increasing the mine's recovery rate, the tax is more nearly in accord with the national goal of maximizing resource use. The rate of extraction remains unchanged with respect to any change in the level of the tax, and there is no way the company can mine out from under the tax.

Some economic incentives still exist, however, which restrict the use of the ore deposit. Since the severance tax is levied at a constant dollar amount per ton, the mining firm will extract minerals only to the point at which its marginal costs plus the severance tax are equal to the market price. Unfortunately, this means that some portions of the deposit where the actual costs of extraction are less than the expected market price are not mined. Those deposits for which the market price minus the marginal cost of extrac-

tion is less than the severance tax will be left in place; even though in the absence of a tax they would be mined. The amount of ore made inefficient to mine through imposition of a severance (or ad valorem tax) cannot be determined without a specific study. But given the relatively low rates for most severance taxes, they probably have a small impact on resource use.

Revenue Adequacy

The severance tax's greatest deficiency is related to revenue adequacy. Since the tax is based on the physical output of the mine, the flow of revenues from the project and the need for additional local government services associated with the project may not coincide. In early stages of development it is especially likely that revenues will be far below those needed to finance the new levels of services. This represents a front-end load problem. Since the construction period for a mine can last for 3 or more years, additional revenue must be made available before the mine is in operation. This need is especially severe in sparsely populated areas where existing public services will probably be inadequate to serve the new residents. Financing the expansion of the services is essential. If revenues from the mine are not available until after the need for more local services arises, the local community will suffer in the short term. This may be only a temporary problem for the community, however, with new revenues exceeding service costs shortly after the mine begins full scale operation.

Special Problems

Two less important features of the severance tax, while not especially difficult to solve, also need some discussion.

First, the severance tax is typically a State-levied tax. That is, unless special provisions are made, the State levies the tax, receives all revenue from the tax, and then apportions it as it sees fit. There is, however, no reason why local governments could not be given the power to enact a "piggyback" severance tax in the same manner as the piggyback sales and income taxes which now exist. Without such a program, some provisions are necessary to insure that local governments in the impact area receive some revenue. Lacking this, the costs of the mine to the local community are likely to outweigh greatly its benefits and there will be strong local resistance to its development. This is not an insoluble problem. The legislation providing for the severance tax can be written to include a specific distribution formula, or State programs of aid to local governments can be modified so that areas affected by mineral development receive a different allocation of funds. Utah, North Dakota, and Montana have recently enacted legislation aimed at returning funds to the energy impact areas.⁹

⁹ Utah Code Annotated 63:51.5-6; North Dakota Century Code 57:61, 62; Montana Revised Code 84:1314-19.

The other problem, less difficult to solve, is that a severance tax fails to adjust automatically to the effect of inflation on local revenue needs. Since the tax is levied at a fixed dollar amount per ton, during a period of inflation the quantity of government services financed by the tax will decrease even though the tax is producing the same dollar amount of revenue.

Several States have recognized this problem and the waste of time in returning to the legislature annually for small tax rate increases; they have linked the severance tax rates to a price index.¹⁰ A one percentage point increase in the appropriate price index increases the severance tax rate by a given percentage, allowing tax revenue to keep pace with inflation.

Summary

The severance tax is a major improvement over the ad valorem property tax when evaluated on the criteria of administrative convenience and social justice. It also offers significant advantages over the ad valorem tax when judged on the basis of its consistency with national economic goals, even though it has some adverse effects on the amount of economically recoverable resources. However, in the area of revenue adequacy, the severance tax does not compare well to the ad valorem tax. The front-end load problem, much worse under this type of tax, requires special treatment to overcome. And since producing revenue is the purpose of all taxes, this is a serious problem which State legislatures must confront.

The Gross Production Tax

State and local governments can also tax mining activity through a gross production tax. Under this tax, taxes are levied on a measure of the dollar value of the product extracted from the mine. Seventeen States use this tax rather than a severance or an ad valorem tax. Other States include gross proceeds in the base for ad valorem taxation. In some instances, gross proceeds are used in place of a value for the mine and equipment. In others, gross proceeds are an addition to the value of the mine. The discussion of gross production taxes in this section applies to both the separate gross production tax and to the inclusion of gross proceeds in the ad valorem tax base.

In many ways, the gross production tax is almost identical to the severance tax. But, because the gross production tax is levied as a percentage of the value of the ore rather than at a fixed amount per ton, there are some important differences. Chief among them are the more equitable treatments of mines during rapid price changes for minerals and the more equitable treatments of mines producing minerals of different qualities. The discussion below centers on these differences.

¹⁰ For example see the Minnesota Taconite, Iron Sulfides and Agglomerates Tax, Minn. Statutes of 1957, Sec. 298.26, or the North Dakota Coal Severance Tax, S.B. 2031, Laws, 1975.

From the local government's point of view the biggest advantage of a gross production tax is that tax revenues increase when mineral prices increase. During general inflation the State or locality can be confident that it will receive about the same real purchasing power from mineral revenue as before without being forced to increase the tax rate. This responsiveness of tax revenue to price changes, however, is less desirable when mineral prices decrease. A government strongly dependent on production taxes might face major financial problems during a long period of depressed prices. And the disadvantages of having a fluctuating revenue source may outweigh the advantages of having a built-in hedge against inflation.

Ease of Administration

The gross production tax is more difficult to administer than the severance tax. Most of the difficulties arise in computing the mineral's sale price. The problem is not usually caused by fluctuating prices. Instead, the problem is that often there are no market transactions from which prices can be obtained. Some coal mines, for example, are part of vertically integrated electric generating plants. All the coal mined is used as an input for a generating station located at the mouth of the mine. Since the coal is not actually sold on the market, the problem is one of determining what accounting price should be attached to the coal. Although it is more difficult to administer the gross production tax than the severance tax, the production tax is probably not as difficult to administer as the ad valorem tax.

Social Justice

Assuming that the administrative problems are adequately handled, the gross production tax is an improvement over the severance tax in terms of social justice. The two taxes would be identical if all mineral deposits were of the same quality and if mineral prices were stable. But, if either of these conditions is not met, the gross production tax does a better job in matching the firm's tax bill with the firm's ability to pay.

When gross receipts of the mine are used as the tax base, differences in the quality of the mineral extracted can be easily taken into account and taxed accordingly. Under a gross production tax, a mine producing minerals worth \$5 a ton and a mine producing minerals worth \$10 a ton will be taxed differently. Their tax bills will be proportional to the value of the mineral produced. Similarly, the mine's tax bill will fluctuate with the mineral's sale price.

Consistency with National Goals

The severance tax and the gross production tax are similar in their consistency with national economic goals. Differences occur when either price

or quality of the minerals varies.¹¹ The price question is relatively unimportant, however, since mine openings and closings are based on an estimate of the long term trend in prices and not short term variations. Unless a major price change occurs, it is unlikely that the gross production tax and the severance tax would have different impacts on mine development.

The severance tax and the gross production tax may affect the cutoff grade for the mine differently. The severance tax is a fixed charge added to each ton of mineral produced. Mineral deposits will not be developed where the marginal cost of production and the severance tax are greater than the market price. However, since the gross production tax is a percentage of the sales price rather than a fixed amount per ton, the tax will be lower for minerals of lower quality. This will enable some mineral production to occur which would not occur under the severance tax.¹² The size of the increase in economically feasible mineral production depends on the relative tax rates and the differences in ore quality within the State.

Revenue Adequacy

Like the severance tax, the gross production tax does not meet the front-end financing problem; communities needing revenue to provide services for new residents during the development and construction phase of the mine will find no special relief from it. In fact, the need for some local services—welfare, for example—might vary inversely with the price of the minerals and the associated activity in the mine. If this is the case the revenue flow over time might be less desirable than either the property tax or the severance tax.

Summary

The gross production tax appears to be slightly more desirable than the severance tax. Its advantages with respect to ability to pay and its improved consistency with national economic goals appear to outweigh the potential disadvantages associated with the administration of the tax and the revenue flow. If major difficulties exist in determining the mineral's price, however, a severance tax is likely to be more satisfactory.

The Net Production Tax

Although the gross production tax is similar to the severance tax, the net production tax has several distinct differences. It is more closely

¹¹ Allyn O. Lockner, "The Economic Effect of Severance Tax Decisions on the Mining Firm," Natural Resources Journal, Jan. 1956, pp. 480-481.

¹² Henry Steele, "Natural Resource Taxation: Resource Allocation and Distribution Implications," Extractive Resources and Taxation, Mason Gaffney, ed., Univ. of Wisconsin Press, Madison, 1967, p. 246.

related to a net income tax since companies are allowed to deduct some expenses from gross revenues in order to reach the definition of net taxable production.

Ease of Administration

Any net income tax introduces a special set of administrative problems. Tax officials must check costs claimed as business expenses as well as estimate gross income. Cost figures are usually obtained from the company's State or Federal income tax return. But the responsibility for checking and auditing returns still increases the administrative burden of the tax on the State or local government and the taxpayer.

Social Justice

The net production tax is an improvement over all the other mineral taxes when judged against social justice criteria. Net income is a much more satisfactory tax base than property value or total production when viewed from the perspective of either ability to pay or horizontal equity. The interregional equity issue is also handled well. This tax also provides a rational basis for allowing progressivity to enter the rate schedule. If any progressivity is introduced in either a severance or a gross production tax, there is a possibility that taxes on marginal enterprises will be increased. This may drive them out of business, while the highly profitable mines are allowed to continue to pay taxes at the same rate.

On social justice criteria the net production tax, if designed so that it includes all the firm's relevant costs, is clearly superior to all other taxes. To the extent that deductible costs do not include all relevant costs to the firm, the tax is less satisfactory and, depending on the omissions, it may, in some instances be worse than any alternative tax.

Consistency with National Goals

Assuming that the net production tax properly reflects both the income and the costs of doing business to the firm, it is also an improvement over the others in its consistency with national economic goals. Like the severance tax, it does not interfere with the optimum rate of recovery in the mine; there are no incentives to mine out from under the tax as there are with the ad valorem tax. In addition, since the tax levy is a percentage of net income, the net production tax does not produce the same incentives to restrict output as do the severance and gross production taxes. With a net production tax, the marginal cost of mining each ton remains the same as it would be without the tax. The profit-maximizing producer will, therefore, mine the same amount under a net production tax as he would if there were no taxes at all. The sole effect of the net production tax is to reduce the mine's profits.

If mineral production is subject to a greater tax burden than other sectors of the economy, investment in mining will decrease and the minimum grade ore required for operation will increase. Levying a net production tax instead of another mineral tax will not affect this result.

Revenue Adequacy

The net production tax does not score well on revenue adequacy. Because it is based on net income it has the same difficulty with the front-end load problem as the severance and the gross production taxes. It is conceivable that the problem may be worse with the net production tax because the mine may not operate at a profit for several years. The best a community can hope for is that it will begin to receive revenue from the mine after it is fully operational.

The revenue stream after operation is considerably more uncertain and subject to considerable variation under the net production tax. Since the tax revenue depends on the mine's net income there will likely be periods when, due to fluctuating market prices, the mine will have little net income while still operating with its full complement of workers.¹³ This possible fluctuation and uncertainty in revenue could create considerable problems for local communities trying to finance services by a net production tax. However, for a State trying to extract some payment from mine owners under a "natural heritage" philosophy, this may be more equitable.

Summary

The net production tax has advantages over other taxes with regard to social justice and compliance with national economic goals. But it is more difficult to administer and is a less reliable revenue source than the other taxes, especially at the local level. While this tax is acceptable for use at the State level, its use at the local level is not advisable.

Conclusions

Of the four major types of taxes levied on the mineral industry, none is clearly superior to the others on all criteria (table I). However, the severance tax and the gross production tax appear to provide the best vehicles for taxing mining activity. Even though the net production tax ranked highest in social justice and consistency with national economic goals, problems in administration and revenue flow may be overriding, especially at the local level. Choosing between the severance tax and the gross production tax is more difficult. There, the decision probably should be made on the basis of how difficult it is to determine a sales price for the mineral taxed. If a market price can be easily ascertained for the minerals coming from each particular mine, the gross production tax offers several advantages over the

¹³ Groves, op. cit., p. 317.

severance tax. If, however, an appropriate market price is not available, the State may be better off with a severance tax.

Table 1--Subjective ranking of alternative mineral taxes on evaluation criteria

Type of tax	Ease of administration	Social justice	Consistency with national economic goals	Revenue adequacy
<u>Rank 1</u>				
Ad valorem	*	*	*	****
Severance	****	**	**	***
Gross production	***	***	***	**
Net production	**	****	****	*

1/ * = lowest rank; **** = highest.

STATE PROGRAMS TO REDUCE FISCAL IMPACT OF MINERAL DEVELOPMENT

Special taxes on minerals all fail to produce enough tax revenue during the construction and development phase of the mine to offset the increased costs of providing local government services. Severance and production taxes produce no revenue until the mine begins to operate. Even ad valorem taxes are often inadequate because, either by law or by custom, nonproducing mineral property is usually assessed at its surface value. Consequently, the necessary expansion of the service delivery system of the local community must be financed from the existing tax base. During the first few years, at least, the value of the new development is not included in the local tax base. This section describes programs enacted in Montana, North Dakota, Utah, and Wyoming to ease the financial strain created by the need for new services before new tax revenues became available.

For many communities the timing of tax revenues does not create major problems. Indeed, some State and local governments have tried to attract new industry by exempting the new firm from all or a major portion of its local property taxes for a period of years. For the communities taking this approach, the benefits of growth outweigh problems associated with the possible short-term fiscal imbalance. These towns usually have sufficient excess capacity in their public service delivery systems to serve the newcomers, or the local labor supply is sufficient to absorb the new jobs without requiring significant immigration. If the tax concession strategy is to

create the fewest problems for local finances, however, growth associated with development must be relatively small compared to the existing local population.

Mineral development—and especially coal development in the Northern Great Plains—typically does not occur in settings where the potential financial imbalance can be minimized. Most major mineral deposits lie in sparsely populated areas where service delivery systems may have little or no excess capacity. The majority of construction and development workers normally must come from outside the immediate vicinity. Population increases of 50 percent or more are not uncommon, much of it occurring before production begins. In the case of mines supporting mine mouth thermogenerators or gasification plants, the local population may peak before the plant goes into operation since the construction work force outnumbers the operating force.

These situations often create the need for a new school or expanded water and sewer systems. Local residents face the choice of letting local service quality decline sharply or of paying considerably higher taxes. Those living in States where statutory limits exist on property tax/millage rates may simply be forced to endure lower quality service.

Local residents may be able to look forward to lower taxes after the mine reaches full production, but the short-run prospects may be disturbing. Many argue that the situation is inequitable to existing residents of the community. There is no real answer to this problem. But, for many individuals, the increased taxes represent only a reduction in the net capital gain due to the appreciation of property values which accompanies the development. For them, there is no net loss.

It is apparent, however, that the threat of higher taxes due to the new development is a powerful force for mobilizing local citizen opposition to any proposed development. If for no other reason than insuring the orderly development of the Nation's mineral resources; some attempt must be made to resolve the front-end financing problem. Four States faced with the possibility of extensive coal development in relatively sparsely populated areas have enacted legislation designed to deal with this problem.

Experience with these programs is very limited; the following discussion is confined to programs approved by State legislatures to meet the problems of funding the early mine developments in a region, to handle impacts outside the taxing districts in which the mine is located, and to assure revenues for the affected community. Future research on the actual success or failure of these programs is important.

Montana

The 1975 Montana State Legislature modified the coal severance tax to take account of possible local fiscal imbalances caused by coal development. A Coal Board was established with the power to award impact grants to counties, towns, and school districts on the bases of need, degree of severity of coal

development, availability of funds, and the degree of local effort in meeting the needs. The Board has distributed \$15.1 million through fiscal 1978.¹⁴

The legislature also created a special property tax classification for gross proceeds from coal strip mines. This action by itself will produce no revenue prior to the mine's operation. But, a companion measure requires those establishing a new firm or mine which will have a major impact on the existing public services to prepay on request an amount not to exceed three times the estimated property tax due the year the facility is completed.¹⁵ One-fifth of the amount prepaid is then allowed as a credit in each of the first 5 years after the start of productive operations.

There is no way at this time to forecast whether the revenues allocated to the Coal Board will meet the needs of affected communities, or whether the 3-year prepayment of property taxes provides enough to cover the temporary fiscal imbalance of the locality. The property tax prepayment provisions by themselves may solve the front-end financing problem of the taxing districts in which the mine is located. For these communities, the extra revenue is certain and quickly accessible and can be obtained by local action without waiting for the judgment of the Coal Board or any other State agency on the need for the funds. Impacts on the local governments outside the immediate vicinity of the mine may not be handled so well. The actions of the Coal Board will determine whether the financial problems these communities face will be treated adequately.

North Dakota

The North Dakota Legislature enacted a Coal Impact Program during its 1975 session. This program, which was scheduled to last only through June 30, 1977, was extended for an additional 2 years by the 1977 legislature. North Dakota's program is more modest in scope than Montana's. It establishes a temporary severance tax on coal, creates a Coal Development Fund, and provides for a Coal Development Impact Office to apportion funds among projects suggested by local governments.¹⁶

Thirty-five percent of the revenue derived from the severance tax is allocated to the Coal Impact Office for distribution to affected cities, counties, and school districts. The Coal Impact Office determines which communities receive aid and how much impact aid they will receive. Impact grants approved totaled \$2,781,314 in fiscal 1976 and \$1,967,214 in fiscal 1977. Through April 1978, 120 projects had been funded.

¹⁴ Montana Coal Board, July, 1978.

¹⁵ Ch. 571, Montana Laws of 1977.

¹⁶ Ch. 563, North Dakota Laws of 1975; Ch. 560, North Dakota Laws of 1977.

Program funds may be insufficient to cover the needs of the affected communities. A single major school expansion or water and sewer expansion could absorb most of the year's appropriations. In addition, the mandated 2-year life for the program appears to assume that all severe fiscal impacts will have occurred by that time. Given the development forecasts for northern Great Plains coal, it seems quite unlikely that all major mining and energy conversion projects will be underway by then.

The program also provides local officials with no assurance that they will receive any impact funds. The Coal Impact Office faces a budget constraint and the director is forced to choose among projects proposed by the local governments. Under these circumstances, worthwhile and necessary projects may not receive funding if the cost of the necessary projects exceeds the available resources.

The North Dakota program is designed to handle much smaller impacts occurring over a shorter period of time than the Montana program. Unfortunately, there are few good current estimates of the actual extent of the early front-end fiscal impacts.

Utah

In 1975, the Utah Legislature enacted a program centered on the prepayment of sales and use taxes on all the equipment and machinery involved in the development of the resource and its production.¹⁷ These funds were to be placed in a special account and used to finance State-related public improvements, including highways and schools. The State Road Commissioner and the State Education Commissioner have the power to suggest projects, but the State Legislature is required to appropriate the funds for a specific facility related to a specific natural resource development. Appropriations made to the State Board of Education for Schools shall be repaid to the State General Fund by the school district where the facility is to be constructed within 6 years from the date of substantial completion of the facility or the date assessed values in the district reached \$50 million, whichever is first.

The sales and use tax revenues associated with the construction and development of a mine or energy conversion plant are likely to be quite large. Although there are no estimates of the amount of revenue this program could raise in its first year, sufficient revenue could be generated to solve local front-end financing problems.

Unfortunately, however, the distribution process for the funds does not insure that the available funds reach the affected communities with any degree of certainty or speed. Because the legislature must approve the projects to be funded, this process is likely to be even slower and less certain than the use of a coal impact office as is done in North Dakota. Since a major characteristic of the front-end fiscal imbalance is the immediate nature of the problem, a program that might take more than a year to provide funds to

¹⁷ Utah Code Annotated, 63:51.5-6.

affected communities is necessarily less desirable than a program providing funds more rapidly. Nonetheless, the possibility of using prepaid sales tax revenues as part of the fiscal impact fund appears to be worth further consideration.

Wyoming

The Wyoming Legislature passed an extensive series of bills designed to reduce local fiscal impact. The program includes the issuance of revenue bonds to finance a State community development authority, a special coal tax for impact assistance, and an industrial development information and siting act. This act includes provisions forbidding issuance of a permit for the construction and operation of the facility if a means of alleviating negative impacts is not specified.¹⁸

The Wyoming Community Development Authority was created and authorized to issue up to \$100 million of revenue bonds so that the State can provide assistance in areas where there have been major development impacts and where needed facilities and services cannot be financed through existing sources.

This program is unique because it has the power to make loans to the private sector to provide financial institutions in the affected area with additional mortgage money as well as the power to loan to public agencies. Because the Community Development Authority has the power to set terms for repayment of loans to local governments, the act may serve as a way of channeling new funds into the local community during the early stages of the development. A court test of the constitutionality of this act has been initiated at the request of the State. Consequently, applications for funds will not be accepted for at least 1 year.

The Wyoming Community Development Program has several advantages over the coal impact board programs used in other States. It allows the mobilization of a considerable amount of capital relatively quickly—not dependent on the actual mineral production in the State—and it allows some aid to the private sector in communities feeling the impact. The \$100 million of funds made available for impact assistance appears to be an amount more adequate than that provided in other States. However, the community has no certainty of receiving funds, and there could be considerable delay before the loan is granted, depending on the action of the Community Development Authority.

A constitutional amendment approved by voters in 1975 created a permanent mineral trust fund. The revenue from a 2-percent excise tax on coal, uranium, trona, natural gas, oil shale, and petroleum, and any other minerals designated by the legislature is to be deposited in this fund. Revenues from an additional 1.5-percent tax on the value of coal produced also go to this fund. Earnings from the investment of the fund are to be deposited annually in the

¹⁸ A detailed review of all legislation dealing with the economic impacts of energy development is in Hayen and Watts, op. cit., pp. 57-74.

State's general fund. The amendment also specifies that the legislature may set conditions and terms under which money from the fund may be loaned to local governments, thereby providing another source of impact aid.

The Coal Tax for Impact Assistance Act provides for a severance tax at increasing rates through 1979, until the amount collected reaches \$210 million. The funds are to be disbursed by the Wyoming Farm Loan Board in areas directly or indirectly affected by the production of coal. The money is to be used to finance public water systems, highways, sewers, and road or street projects. At least 50 percent of the revenues must be used to finance highway, road, or street projects. In 1978, this tax will likely reach only about \$2 million; it is unlikely that this act will provide much immediate assistance to affected communities.

SUMMARIES OF STATE MINERAL TAX LAWS

Alabama

Alabama levies severance taxes on oil, natural gas, coal, and iron ore. In 1977, the State received more than \$13.7 million from these taxes, or about 1.0 percent of its total tax revenues.

Two separate taxes are levied on oil and gas production: a 4-percent production tax on the gross value of the oil or gas severed and a conservation tax at 2 percent of gross value [40:20.2(a), 9:17,25].

Net revenue from the production tax is distributed according to the following schedule:

- a. Twenty-five percent of the oil and gas production taxes collected in any county shall be allocated to the county to be expended at the discretion of the county government. However, in counties with populations between 34,875 and 36,000 in the 1970 Federal census, the funds are to be prorated to boards of education based on the number of children in net enrollment in the district. In counties with a population between 16,000 and 16,250, the first \$150,000 shall be paid to the custodian of the school funds. The balance remaining shall be allocated two-thirds to the county general fund and one-third to the school fund.
- b. Ten percent of the taxes levied on oil and gas wells located within the corporate limits or the police jurisdiction of any municipality shall be allotted to the municipality.
- c. Fifty percent of the first \$150,000 remaining goes to the State, 42.5 percent to the county, and 7.5 percent to municipalities on a population basis [40:20.8].

Alabama/Alaska

All oil or gas produced, all leases in production, including mineral rights on producing properties, and all oil or gas under the ground on producing property within the State are exempt from all ad valorem taxes of the State, counties, or municipalities. No additional assessment shall be added to the surface value of such lands by reason of the presence of oil or gas thereunder or production therefrom [40:20.12]. Cities and counties are also expressly forbidden from levying any additional taxes on oil or gas produced in the State of Alabama.

The conservation tax was originally enacted to finance the Oil and Gas Board. In 1961, however, the 2-percent tax was allocated to the State's general fund [9:17.31].

A severance tax is also levied on iron ore. This tax, in the form of a license or privilege tax, is imposed at a rate of 3 cents per long ton [40:12.128].

Since 1971, a severance tax of 13.5 cents per ton has been levied on coal mined in the State [40:13.2]. The revenue goes to a special bulk-handling facility trust fund and is to be used to pay principal and interest on revenue bonds issued to construct the State docks bulk-loading facility. If in any fiscal year the funds on deposit exceed the amount due on the bonds in the succeeding 12 months, the excess is available for refund to individual taxpayers on a pro rata basis [40:13.5].

In 1977, a severance tax of 20 cents per ton on the mining of coal or lignite was added. Proceeds from this tax are returned to local governments according to the following formula:

1. For mines located within the police jurisdiction or municipal limits of a municipality, 50 percent of the tax collected goes to the municipality and 50 percent to the county.
2. For mines located outside the police jurisdiction or municipal limits of a municipality 100 percent of the tax collected goes to the county government.

This act also prohibits local severance taxes [40:13.31,32].

Alaska

Alaska received more than \$23 million, about 3 percent of total State revenue, from production taxes on petroleum and natural gas in 1977. In 1977, the Alaska Legislature repealed the previous production tax on oil and gas and replaced it with a production tax with a graduated rate structure. For oil, the new base tax rate is the greater of 12.25 percent of the product's value at the point of production or 60 cents per barrel of old crude and 80 cents per barrel of all other oil [43:55.011].

The base tax rates are then adjusted as follows [43:55.012(b)]:

1. The original cents-per-barrel rate applies to oil of 27 degrees API gravity. For each degree of API gravity less than 27 degrees, the cents-per-barrel amount shall be reduced by \$.005 and for each degree of API gravity greater than 27 degrees the cents-per-barrel amount shall be increased by \$.005 except that oil above 40 degrees API gravity shall be taxed as 40-degree oil.
2. The base rate adjusted for API gravity is then multiplied by an economic limit factor to obtain the actual tax rate. The economic limit factor acts to reduce taxes as production falls or as production costs rise.

The economic limit factor for oil production of other than old crude equals:

$$(1 - [PEL/TP]) \exp (-\$60 \cdot WD/PEL)$$

where: PEL = monthly production rate at the economic limit,
 TP = total production during the month for which the tax is to be paid,
 WD = total number of well days in the month for which the tax is to be paid, and
 exp indicates that the expression following is an exponent [43:55.013(d)].

The economic limit factor for gas or old crude oil production equals:
 $1 - PEL/TP$ [43:55.013(a), (c)].

The monthly production rate at the economic limit for oil property is presumed to be 300 barrels times the number of well days for the property during the month for which taxes are to be paid. The taxpayer may rebut this presumption at a formal hearing [43:55.013(d)].

The monthly production rate at the economic limit for gas shall be established individually for each lease or property in the State, and shall be based on the value of the gas produced and the average monthly direct operating costs [43:55.013(g), (h), (c)].

The base tax rate for gas is \$.064 per thousand cubic feet of taxable gas or 10 percent of the gross value of taxable production calculated at the point of production [43:55.016(b), (c)].

The tax levied under this section is in place of all taxes imposed by the State or its municipalities except franchise taxes, income taxes, taxes upon the retail sale of oil and gas, and the one-eighth cent per barrel oil and gas regulation and conservation tax [43:57.010].

Arizona/Arkansas

Arizona

Arizona uses an ad valorem property tax to tax the mineral industry; it has no severance or production taxes. The State tax commission has responsibility for taxing all patented and unpatented mining claims [42:126]. The value of the mine is determined by estimating probable gross revenue and deducting the probable cost of extraction, reduction, and sale of the ore product. The net value is then converted to its present worth. Five classes of property are established in Arizona for assessment purposes. Mines, smelters, railroads, mills, and lumber are all assessed at 60 percent of market value, the highest rate of any class. In contrast, commercial and industrial property is assessed at 27 percent, agricultural property at 18 percent, and residential property at 15 percent of market values [42:255].

A special tax on the mineral industry was enacted in 1967. A tax of 1.5 percent of gross proceeds or gross income was levied on every person in the State in the business of mining, quarrying, smelting, or producing for sale or commercial use any oil, natural gas, limestone, sand, gravel, copper, gold, silver, or other mineral product compound or combination of mineral products. Revenue from this tax goes to the State School Fund [42:1371].

Arizona also levies a mining privilege tax at a rate of 1 percent of gross receipts. Revenue collected from that tax is distributed as follows: 4 percent for administration, 15 percent to the Department of Economic Security, and 25 percent to incorporated cities. The remaining 56 percent is divided 40 percent to the State's general fund and 60 percent to counties. The funds are allocated among the counties according to the counties' assessed values and the amount of privilege tax collected, with each factor receiving equal weight.

Arkansas

Arkansas levies a severance tax on the value of most natural resources removed from the soil or water. Among those included under the tax are natural gas, oil, coal, barite, bauxite, titanium, manganese, zinc, cinnabar, lead, crushed stone, gypsum, sand, and precious stones [84:2102]. During fiscal 1977 this tax provided slightly over \$10.4 million, or about 1 percent of State tax revenues.

Since the tax is a severance tax, it is levied at a fixed rate per volume for most minerals: 15 cents per short ton of barite, bauxite, titanium, manganese and manganiferous ores, zinc, cinnabar, and lead; 2 cents per short ton of coal, lignite, and iron ore; and 1.5 cents per short ton of gypsum not used for manufacturing in Arkansas, chemical grade limestone, silica sand, and dimension stone [84:2102(a)-(d)]. However, diamonds, other precious stones, native sulfur, salt, and an assortment of less important stones and resources are taxed at 5 percent of the value of the product at time of severance [84:2102(h)].

Natural gas and oil are also subject to tax. Natural gas is taxed at 0.3 cent per 1,000 cubic feet. Oil from a well producing an average of 10 barrels or more is taxed at 5 percent of market value at the time of production. For wells averaging below 10 barrels, the tax is computed at 4 percent [84:2102(e)].

Severance taxes levied under this law are in addition to the general property tax. Payment of the tax does not affect the liability of the producers for all State, county, municipal, or special district taxes upon their real and corporeal property. However, no other privilege or excise taxes are to be imposed upon the right to use the natural resource [84:211]. This provision apparently does not apply to the Arkansas Oil and Gas Conversion Tax which is now limited to 10 mills per barrel of oil or 1 mill per 1,000 cubic feet of natural gas [53:125].

Although the State collects all severance taxes, the State Treasurer is required to return a large portion of the funds to local governments. The General Revenue Fund receives 3 percent; the remaining 97 percent is distributed as follows:

1. All severance taxes, penalties, and costs on timber and timber products go to the State Forestry Fund.
2. Of the severance taxes, penalties, and costs, except those on timber, 75 percent shall be "general revenues" and shall be allocated to the various State treasury funds participating in general revenues in the proportions provided by the Revenue Stabilization Law of Arkansas.
3. The County Aid Fund receives the remaining 25 percent.

The State Treasurer prorates the County Aid Fund among the counties based on the proportion of the State's severance tax revenues produced by that county. On receipt of these funds the county treasurer credits 50 percent of the money to the County General School Fund and 50 percent to the County Highway Fund.

In 1977, the Arkansas Legislature added an additional tax of 5 mills per barrel on oil production. Revenues from this tax go to establish the Arkansas Oil Museum [Act 310, 1977].

California

California levies a small oil and gas production tax on mineral property which in 1976 raised \$2.3 million, about 0.02 percent of total State tax revenue. The tax is levied on the number of barrels of oil and thousands of cubic feet of natural gas extracted at a rate determined annually by the California Department of Conservation [Pub. R. 3404]. The value of minerals in place is subject to local property taxes, however.

Colorado

Colorado

Until 1978, Colorado levied a severance tax on coal and production taxes on oil and gas. In 1976, these taxes produced slightly more than \$500,000, or about 0.05 percent of the State's tax revenue. Mineral property is also subject to an ad valorem property tax based on gross proceeds.

The 1977 Colorado Legislature made significant revisions in the State's mineral tax laws. The coal severance tax and oil and gas production taxes were repealed effective January 1, 1978, and replaced with a broader severance tax covering metallic minerals, coal, oil and gas, molybdenum, oil shale, rock, sand, gravel, limestone, and dolomite.

For metallic minerals, the new tax rate is 2.25 percent of gross income for all income in excess of \$11 million. Ad valorem taxes assessed during the taxable year are allowed as a credit against this tax in an amount up to 50 percent of the severance tax levied [39:29.103].

The new tax on molybdenum ore is 15 cents per ton.

Oil and natural gas will be taxed at a percentage of gross income according to the following schedule:

<u>Gross income</u>	<u>Tax rate (%)</u>
under \$25,000	2
\$25,000 to \$99,999	3
\$100,000 to \$299,999	4
\$300,000 and over	5

A credit equal to 87½ percent of all ad valorem taxes assessed by State and local governments during the taxable year on the leaseholds, royalties, and royalty interests may be applied against the severance tax. Ad valorem taxes, however, do not qualify for inclusion if levied on equipment and facilities used in drilling for crude oil or natural gas or producing, storing, or transporting through a pipeline [39:29.105].

Coal will be subject to a severance tax of 60 cents per ton, but no tax is levied on the first 8,000 tons per quarter. In addition, coal produced from underground mines qualifies for a credit of 50 percent of the tax. An additional credit equal to 50 percent of the remaining tax is provided those mining lignite. For every three points change in the wholesale price index prepared by the U.S. Department of Labor, the tax rate will be increased or decreased 1 percent [39:29.106].

The gross proceeds from the severance of oil shale are subject to tax at a maximum rate of 4 percent. The tax does not apply until the oil shale facility is producing at least 50 percent of capacity. The rate schedule is:

<u>Year</u>	<u>Percent</u>
First	1
Second	2
Third	3
Fourth and each succeeding year	4

The production of the first 15,000 tons per day of oil shale, or 10,000 barrels per day of shale oil is exempt from the tax.

Shale oil produced from in situ methods is allowed a 25-percent tax credit [39:29.107].

Revenues from severance taxes on minerals and mineral fuels realized after June 30, 1981, will go to a State severance tax trust fund. This fund is to be perpetual and is to serve as a replacement for the State's depleted natural resources. Only the income from investment of the trust fund is to be available to be spent. That income is to be deposited in the State's general fund.

Prior to June 30, 1981, revenues from the severance tax are to be distributed as follows [39:29.108]:

1. For oil and gas, 100 percent to the State's general fund.
2. For oil shale, 40 percent to the State severance tax trust fund and 20 percent to the local government severance tax fund.
3. For molybdenum, see table 2.
4. For coal and metallic minerals, see table 3..

Table 2--Distribution of taxes collected on molybdenum, Colorado

Fiscal year	State general fund	State severance tax trust fund	Local government trust fund
			<u>Percent</u>
1978	70	20	10
1979	70	20	10
1980	60	30	10
1981	50	40	10

Table 3--Distribution of taxes collected from coal
and metallic minerals, Colorado

Fiscal year	State general fund	State severance tax trust fund	Local government trust fund
		<u>Percent</u>	
1978	40	15	45
1979	40	15	45
1980	30	25	45
1981	20	35	45

The severance tax act also created a new fund, the local government severance tax fund, to be administered by the Department of Local Affairs. Fifteen percent of the fund's receipts are returned to counties and municipalities in proportion to the number of residents of the municipality or unincorporated area of the county employed in the mine or reporting facility.

Eighty-five percent of the funds are to be distributed from the local government severance tax fund to local governments affected by energy or mineral development. This revenue is to take the place of property tax revenues lost when severance tax payments were allowed to be deducted in determining the value of the mine. These funds may be used for either operating or capital expenditures.

An energy impact advisory committee was created to recommend to the Department of Local Affairs actions needed to assist impacted areas, the problems faced by local governments in providing services, the extent of available local government tax resources, and other problems such as housing and environmental deterioration which may result from energy impacts. The executive director of the Department of Local Affairs is to be the chairman of this committee. Other members include the Commissioner of Education, the executive director of the Highway Department, the executive director of the Department of Natural Resources, and five residents from energy impact areas, two of whom must reside east of the Continental Divide [39:29, N10].

All mines are also subject to an ad valorem property tax. Each mine owner or operator is required to file with the county assessor a statement showing, among other things, the gross value of the product extracted; the costs of extracting, treating, reducing, and transporting the product; the gross proceeds of the mine; and the net proceeds of the mine. The property is then assessed at 25 percent of gross proceeds, or at net proceeds, whichever is greater [39:6,106]. The mineral property so valued is then taxed at the rate established by the county.

Florida

In 1971, the State of Florida added a severance tax on solid minerals to its existing production tax on oil and natural gas. Solid minerals, defined broadly, include clay, gravel, phosphate, rich lime, shells, stone, sand, and rare earths as well as the mineral ores. In 1977, the State received more than \$47 million from these taxes, or about 1.6 percent of its budget.

The 1977 Florida Legislature increased the severance tax rate on both oil and phosphate rock. Oil from wells yielding more than 100 barrels per day is now taxed at 8 percent of the gross value of production. Of the revenue raised from this tax seven-eighths goes to the State's general fund and one-eighth to the general fund of the county in which the oil was produced [211:02.1].

Natural gas production is taxed at 5 percent of gross value of production. Eighty percent of this revenue goes to the State's general fund and 20 percent to the general fund of the county where it was produced [211:02.1].

Mining of phosphate rock is taxed at 10 percent of the gross value of production at the time of extraction. For all other solid minerals the rate is 5 percent [211:31.1,3].

Seventy-five percent of the revenue derived from the tax on phosphates and 50 percent of the revenue from the tax on solid minerals goes to the State's general fund. The remaining revenue is paid to the Land Reclamation Trust Fund [211:31.3].

Taxpayers are allowed to credit the full amount of ad valorem taxes paid on the separately assessed mineral interest of the property against the solid mineral severance tax. However, this ad valorem tax credit cannot exceed 20 percent of the taxes due under this section [211:32.1(a)]. The credit, which may be accumulated over several years, is allowed only if the taxpayer has a program for site reclamation and restoration approved by and filed with the Department of Natural Resources [211:32.1(c)].

Taxpayers are entitled to a further return of taxes under this section, if they institute a reclamation and restoration program on the mine site. Other alternatives include the reclamation of land other than the mine site, or the transfer of the site to the State for use as State land. In the case of reclaimed land, the taxpayer will receive an amount equal to 100 percent of his costs of reclamation and restoration subject to a maximum limit of the amount of taxes paid by the taxpayer that is deposited in the Land Reclamation Trust Fund. With regard to the transfer of land to the State, a refund equal to 100 percent of the fair market value of the land, up to an amount equal to the taxes paid by the owner deposited in the Land Reclamation Trust Fund, is allowed.

Idaho

In 1977, the Idaho Legislature amended the existing license tax on mining, changing it from a tax on gross value to a tax on the net value of ores mined. In addition, phosphate and limestone were added to the list of minerals taxed, and rock in place was added to the kind of mining taxed. Idaho law now provides that anyone engaged in or receiving royalties from any mining claim containing gold, silver, copper, lead, zinc, coal, phosphate, limestone, or other precious and valuable metal or mineral shall pay the State an amount equal to 2 percent of the net value of the royalties received or the ores mined [47:1201].

The net value of the ore is to be computed using one of the following methods [47:1201]:

1. By deducting from the gross value of the ore all costs of mining and processing such ore using the formula prescribed in section 613 of the Internal Revenue Code and Treasury Regulation 1.613-5 for computation of the net income from mining for depletion purposes, less the deduction of Federal depletion or
2. By deducting the following from the gross value determined by the U. S. Department of the Interior for computation of the value of minerals on public lands for Federal royalty purposes:
 - a. all costs of mining the ore to the point at which valued; the costs to include only those directly incurred in and attributable to the mining operation in Idaho,
 - b. the applicable portion of the Federal deduction for depletion, allocated on the ratio of gross value of ore used for this computation to the gross value of ore for the Federal depletion computation.

All revenue from the ore mine license tax is credited to the State's general fund.

Kentucky

Severance taxes in Kentucky produced more than \$113 million for the State in 1977. Taxes are levied on both coal and petroleum production, although almost all revenues are derived from the coal tax.

The coal severance tax, enacted in 1972, is levied at a rate of 4.5 percent of the gross value of all coal severed during a reporting period [143:020]. The tax is in addition to all other taxes levied by the State or

Kentucky/Louisiana

local government. There is no restriction on the use of the tax by localities in addition to the State.

The oil production tax is levied by both the State and the county. All producers of crude petroleum must pay a tax of 0.5 percent on the market value of all petroleum produced in the State. Any county may impose an additional tax of 1 percent of the market value and these revenues may be used for any purpose by the county. When a producing well is located in a separate taxing district within the county, however, the funds shall be distributed equitably among districts [137:120].

In 1974, the Kentucky Legislature created a special Coal Producing County Development Fund to be used for public improvement projects in coal producing counties. Possible projects which can be financed include "the construction, reconstruction, and maintenance of roads and bridges, sewer and water projects, construction or renovation of public facilities, parks, and industrial development projects" [42:300.2].

Money for the Coal Producing County Development Fund is appropriated by the Legislature from the general fund. Income from the fund is apportioned to counties on the basis of the ratio of the severance tax collected in the county to total amount of severance tax collected statewide. Each year, a list of proposed expenditures from the fund is to be submitted by each coal-producing county for consideration by the Commissioner of the Executive Department of Finance and Administration. Except where the proposed expenditure violates State law, the recommendation will be accepted provided, however, that the Commissioner may ask for reconsideration on any project [42:300.3].

The fund is supervised by an advisory committee of seven members, all from districts in coal-producing counties. Five of the members are selected from the State House of Representatives by the House members; the other two are selected from the State Senate by its members [42:310].

Louisiana

Louisiana makes extensive use of severance taxes, levying them on many minerals, including natural gas and oil. In 1977, the State received more than \$495 million from these levies, nearly 29 percent of the State's tax revenues.

Severance taxes are levied in addition to all other State, parochial, municipal, district, and special district taxes levied on real estate and other corporeal property. However, no further taxes or licenses may be imposed on oil or gas leases or rights, nor should any additional value be added to the assessment of land by reason of the presence of oil or gas on the property. In addition, no parish or other local government can levy a severance tax or license fee [47:643].

Louisiana

The tax is levied at the following rates [47:633]:

1. Oil, 12.5 percent of its value at time of severance.
2. On wells incapable of producing more than 25 barrels per day, and which also produce at least 50 percent salt water, 6.25 percent.
3. For wells incapable of producing more than 10 barrels per day, 3-1/8 percent.
4. Distillate, condensate, or similar resources, 12.5 percent.
5. Natural gasoline, ethane, or methane, 10 cents per 42-gallon barrel.
6. Butane and propane recovered through processing, 5 cents per 42-gallon barrel.
7. Natural gas, 7 cents per 1,000 cubic feet. If the gas comes from an oil well with pressure of 50 pounds per square inch or less, the rate is 3 cents per 1,000 cubic feet. If the well is judged incapable of producing an average of 250,000 cubic feet of gas per day, 1.3 cents per 1,000 cubic feet. The tax is not levied on gas injected into a formation for storage, used for drilling fuel, consumed as fuel in the operation of a gasoline or a recycling plant, or in the production of natural resources in the State. Gas produced from oil fields vented or flared into the air is also not taxed.
8. Sulfur, \$1.03 per long ton.
9. Salt, 6 cents per short ton.
10. Coal and ores, 10 cents per short ton.
11. Marble, 20 cents per short ton.
12. Stone, sand, and gravel, 3 cents per short ton.

The revenue collected through the severance tax is distributed as follows:

1. One-third of all severance taxes is credited to the State's general fund; provided, however, that beginning in the 1974-75 fiscal year and for each of the four succeeding fiscal years, \$10 million shall be deposited in the Bond Security and Redemption Fund, and beginning in fiscal 1974-75, \$48 million is allocated to the

highway department for its overlay and bridge replacement program.

2. One-third of the severance taxes on sulfur and 20 percent of the severance taxes on oil, gas, coal, ores, shells, marble, stone, sand, and gravel is allocated to the parish within which the taxes are collected. These credits are subject to a limit of \$100,000 per parish from the sulfur tax and \$200,000 per parish from all mineral taxes.

Severance taxes not otherwise allocated shall be credited to the Severance Tax Fund [47:645].

Michigan

Michigan levies a production tax on individuals severing oil or gas. This tax produced slightly over \$9 million in 1977, or slightly more than 0.2 percent of State tax revenues. The tax is levied at 2 percent of gross value of the oil or gas severed and is in lieu of all other taxes, State or local, on the oil or gas, the property rights attached to them, or the values created and upon all leases or the rights to develop any land for oil or gas [205:303].

Michigan also has a tax on low-grade iron ore production; a similar tax on copper mining was removed in 1960. While plants for the beneficiation or treatment of low-grade iron ore are being constructed, the property is subject to an annual tax equal to the rated annual capacity of the plant in gross tons multiplied by 1 percent of the value per gross ton, multiplied by the percent completion of the mining property [211:622]. After production has been established on a commercial basis, the property tax is equal to the average annual production during the preceding 5-year period multiplied by 2 percent of the value of the ore [211:623]. If at any time, however, the specific tax as determined in section 623 (above) is less than the tax determined under section 622, the provisions of section 622 become controlling.

The tax provided in this act is in lieu of ad valorem taxes on the low-grade iron ore, the low-grade iron ore property, and the lands used in mining, quarrying, transporting, and beneficiating the ore, as well as taxes on mining or producing concentrate from the ore.

Minnesota

Minnesota received more than \$59 million from mineral occupation, production, and royalty taxes during 1977. This sum amounted to slightly more than 2.4 percent of State tax revenues. The major revenue source is the tax on production of iron ores and low-grade iron ores such as taconite.

Minnesota

An occupation tax of 15 percent of the value of production is levied on production of taconite, semitaconite, and iron sulfides; all other iron ores are taxed at 15.5 percent [298:01]. Gross value of the ore is defined as the Erie pellet or ore price adjusted for iron content [298:03].

To encourage employment and the utilization of lower grade underground ores, a credit is allowed against the occupation tax if the ore is beneficiated in the State. The credit per ton is equal to 10 percent of labor costs in excess of \$0.70 per ton and less than \$0.90 per ton, and 15 percent of labor costs in excess of \$0.90 per ton. For ore not beneficiated in the State the credit per ton is 10 percent of labor costs between \$0.80 and \$1.05 per ton plus 15 percent of labor costs in excess of \$1.05 per ton. Both credits apply only to the first 100,000 tons per year. For underground and taconite operations, the credit may not exceed 8.25 percent of the taxable value of the ore; for other operations, the limit is 6.2 percent [298:02].

If allowable costs for mines other than taconite and semitaconite exceed the value of the ore at the surface, a tax credit is allowed. The credit is computed by applying the current tax rates to the excess of such costs over the value, limited to 53.68 percent of the credit for open pit mines and 42.10 percent for underground mines [298:027].

Minnesota also taxes all royalties received for permission to explore, mine, take out, and remove ore. Royalties on taconite, semitaconite, and iron sulfides are taxed at 15 percent; royalties on natural iron ores at 15.5 percent. The labor credit allowed under the occupation tax is also allowed for the royalty tax [299:01]. Copper-nickel royalties are taxed at 1 percent with an additional tax of 1 percent on gold, silver, or other precious metals [299:013].

In addition to the occupation and royalty taxes, the production of merchantable iron ore concentrates from taconite and iron sulfides is taxed. Minnesota levies a base tax of \$1.25 per ton of merchantable iron ore concentrate produced. In 1978 and beyond, this base is multiplied by the ratio of the steel mill products index during the production year divided by that index for 1977. In no event, however, will that tax ever be less than \$1.25 per ton. A surtax is levied at 1.6 percent of the total tax above for each 1 percent that the iron content of the concentrate exceeds 62 percent when dried at 212°F [298:24, 298:393].

The production taxes imposed on taconite and iron sulfides are in addition to the occupation tax imposed on the business of mining and producing iron ore, the royalty tax, the taconite railway tax, and an ad valorem tax on unmined taconite ore. The production tax is in lieu of all other taxes on taconite or iron sulfides, the lands in which they are contained, their mining, quarrying, and concentration, or upon the machinery, equipment, tools, supplies, and buildings used. In addition, firms receive a credit of up to 2 cents per ton for direct taxes paid for principal and interest on bonds issued by a school district or a city.

Proceeds from the taconite production tax are divided as follows
[298:28]:

1. 2.5 cents per ton to the city or town in which the taconite was mined or beneficiated.
2. 12.5 cents per ton to the taconite municipal aid account to be distributed to cities on Minnesota's Iron Range.
3. 6 cents per ton to the school district in which the mine is located.
4. 20 cents per ton to Iron Range School districts to be distributed in proportion to the district's permitted levies.
5. 12.5 cents per ton to the county in which the taconite was mined.
6. 2 cents per ton to the county road and bridge fund in the county where the taconite was mined.
7. 23 cents per ton to the taconite property tax relief account. In 1980, this amount increases to 24 cents per ton.
8. 1 cent per ton to the State.
9. 3 cents per ton to the Iron Range Resources and Rehabilitation Board.
10. The remaining proceeds are to be divided equally between the taconite area environmental protection and economic development fund and the northeastern Minnesota economic protection fund.

Ten percent of all occupation taxes are distributed to the University of Minnesota, 40 percent to foundation aids, and 50 percent to the State's general fund [298:17].

The mining of semitaconite and agglomerates and the production of ore concentrate is also taxed. Concentrates from agglomerates are taxed at 5 cents per gross ton; concentrates from semitaconite not sintered within the State are taxed at 10 cents per ton. To both of these rates is added a tax of 0.1 cent per gross ton for each 1 percent that the iron content of the product exceeds 55 percent when dried at 212°F [298:35]. Again, this tax is in addition to the occupation tax. If, however, at least 1,000 tons of concentrate are not produced during the year, the tax may be levied at the local millage rates, provided that the tax will not be greater than that on the assessed value assigned to semitaconite in 1958 or an amount sufficient to raise \$1 per acre.

Minnesota/Mississippi

The proceeds of the semitaconite tax are returned to the various taxing districts where the semitaconite was mined according to the following formula [298:39]: 22 percent to the city or town, 50 percent to the school district, 22 percent to the county, and 6 percent to the State.

Other low-grade iron ores which must be separated from other detrimental compounds and elements before processing are taxed at the same rate as semitaconite [298:428].

The combined occupation, royalty, and excise taxes imposed on taconite cannot be increased to exceed the greater of (1) the amount which would be payable if such taxes were computed under 1963 law or (2) the amount which would be payable if the person or corporation were taxed with respect to the income, franchise, and excise tax laws generally applicable [298:40, ART. XXII Minn. Const.].

Minnesota also levies occupation and production taxes on copper-nickel mining. The occupation tax, levied at 1 percent of value, is based on the value of ore produced less costs of labor and supplies, costs of overburden removal or tunnel construction, and royalties. The value of the ore is also net of the tax on ore transported to a concentrating mill [298:61]. A credit is allowed against the tax for intrastate processing and for research experimentation and exploration [298:54,55].

Copper-nickel production is also subject to a production tax of 2.5 cents per ton [298:61]. The base tax increases 1 percent for each 0.1 percent that the average copper-nickel content per each gross ton of ore exceeds 1 percent. The proceeds from the copper-nickel occupation and production taxes are distributed in the same way as the taconite taxes.

Mississippi

Mississippi received more than \$23.4 million in severance tax revenues in 1977. This money, almost entirely from a tax on the privilege of extracting oil and natural gas from the soil or water, accounted for nearly 2.4 percent of State tax revenue.

The severance tax on oil is levied at 6 cents per barrel or 6 percent of value, whichever is greater [27:25.503]. Natural gas is taxed at 6 percent of value or 3 mills per cubic foot, whichever is greater [27:25.703].

Proceeds from the severance tax on oil are distributed as follows:

1. On the first \$600,000, 90 percent to the State and 10 percent to the county.
2. On the next \$600,000, 66-2/3 percent to the State and 33-1/3 percent to the county.

3. Above \$1.2 million, 95 percent to the State and 5 percent to the county.

If oil-producing properties exist within the corporate limits of a municipality, the municipality shares the funds returned to the county in the proportion in which the severance tax proceeds from properties located within the municipality bear to the total tax proceeds of the county. In no event, however, shall the amount allocated to municipalities exceed one-third of the tax produced in the municipality. The balance of the funds returned to the county is to be divided among the various funds and districts at the discretion of the board of supervisors.

The tax levied on gas production is distributed slightly differently. Two-thirds of the revenue goes to the State's general fund and one-third to the county [27:25.705]. Again, if gas-producing property lies within the territorial limits of any municipality, the municipality receives a pro rata share (not to exceed one-third of the tax) based on the proportion of the tax collected in the county that is derived from property located in the municipality.

All gas produced in the State and all gas-producing properties are exempt from ad valorem taxes levied by the State or any taxing district in the State [27:25.721]. This exemption does not apply to personal property used to drill for or gather gas, nor does it apply to the surface rights of land. However, no additional assessment may be added to the surface value of the lands by reason of the presence of gas.

The State also levies a charge of 6 mills per barrel of crude oil and 0.4 mill per 1,000 cubic feet of gas produced to pay expenses incurred in the administration and enforcement of the oil and gas conservation laws [53:1.73].

The State also levies a license fee on all individuals mining clays, lignite, or other earth products. The tax is \$75 if output is more than 1,000 tons per year; \$25 if output is less.

Montana

Montana levies several special taxes on mines and mineral production. There are taxes on coal production, metaliferous mine production, oil and gas production, micaceous mineral production, cement, and gypsum; and there is a tax on the gross product of any type of mining. In addition, since these taxes are not in lieu of the ad valorem taxes, all mines are subject to local property taxes. In 1977, the State received about \$46.9 million or about 15 percent of State tax revenues from these taxes. Gross receipts are used to measure the value of coal mines; other types of mines are valued on their net production.

The State levies a general mineral mining tax on all individuals or firms mining, extracting, or producing a mineral from the surface or subsurface of

Montana

the State. This tax is levied at a rate of \$25 plus 0.5 percent of the gross value of the production in excess of \$5,000. The revenue from this tax goes to a special State fund [84:7007]. When the fund reaches \$10 million, interest may be used to rectify environmental damage caused by coal mining. When the fund reaches \$100 million, revenue from the tax as well as the interest generated can be used.

Minerals are also taxed through a series of selective license taxes levied on the privilege of mining. These tax rates differ, allowing the State to take account of differences in production costs for different types of minerals.

The license fee for mining metals, precious or semiprecious stones, or gems is based on the gross value of the products. The annual fee is \$1 plus the gross production levy. Rates for the gross production levy are: first \$100,000, 0.15 percent; above \$100,000 not exceeding \$250,000, 0.575 percent; above \$250,000 not exceeding \$400,000, 0.86 percent; above \$400,000 not exceeding \$500,000, 1.15 percent; above \$500,000, 1.438 percent [84:2004].

The State license tax on micaceous minerals such as vermiculite, perlite, kerlite, and masonite is 5 cents per ton. A tax of 22 cents per ton is levied on each ton of cement produced, used, or imported for use in the production of cement, gypsum, gypsum plaster, stucco, wallboard, land plaster, or other products. Gypsum produced, manufactured, or used is taxed at 5 cents per ton [84:5902, 84:1102, 84:1202].

Every person producing or extracting oil or natural gas in Montana must also pay a tax on the total gross value of all merchantable or marketable natural gas produced. Natural gas is taxed at a rate of 2.65 percent of gross value. Oil is taxed at 2.1 percent of the first \$6,000 of total gross value of the petroleum and other mineral or crude oil produced from each lease within a unitized property during a calendar quarter. Production in excess of \$6,000 in gross value during each calendar quarter is taxed at 2.65 percent [84:2202].

A conservation tax is also levied at rates set by the State Oil and Gas Commission. The rates are currently 3/8 cent per barrel of oil on leases producing an average of 25 barrels per day or less and 3/4 cent per barrel on production from wells averaging more than 25 barrels per day. For natural gas the rates are 2.5 mills per 10,000 cubic feet of natural gas if marketed for more than 15 cents per 1,000 cubic feet [60:145]. The proceeds from the conservation tax are used to pay the expenses of the Oil and Gas Commission.

Coal mining is also taxed through a license tax. The 1975 legislature modified the existing coal producer's license tax to take better account of the differences in cost between strip mining and underground mining. The legislature also hoped to stabilize the flow of tax revenues from coal mines to local government through the property tax system and to simplify the structure of the coal taxation system in Montana. To accomplish this they imposed

a severance tax with the rate depending on both the heating quality of the coal and the way in which it was mined. The rates are:

<u>Btu's/lb</u>	<u>Surface mine</u>	<u>Underground mine</u>
7,000 or less	12¢/ton or 20% of value	5¢/ton or 3% of value
7,000 to 8,000	22¢/ton or 30% of value	8¢/ton or 4% of value
8,000 to 9,000	34¢/ton or 30% of value	10¢/ton or 4% of value
more than 9,000	40¢/ton or 30% of value	12¢/ton or 4% of value

Taxpayers are entitled to exclude 20,000 tons of coal annually from the tax. Revenue from the coal license tax is allocated in the following way:

1. Through 1979, the State Coal Trust Fund receives 25 percent of all coal license tax revenues; afterwards the trust fund will receive 50 percent of all revenues.
2. Until 1980, the county receives 1.5 percent of the value of the coal mined in the county; beginning in 1980, the county will receive no revenue from this source.
3. Until 1980 the Alternative Energy Research and Development Account receives 1.875 percent of total collections; afterwards 2.5 percent of collections will go to that account.
4. Until June 30, 1979, the Local Impact and Education Trust Fund receives 19.875 percent of total collections; 28.125 percent of collections between July 1, 1979 and December 31, 1979; and 18.75 percent of all collections thereafter will go to this fund.
5. The Coal Area Highway Improvement Account will receive 9.75 percent of all collections from July 1, 1977 to June 30, 1979.
6. Through 1979, the State School Equalization Fund will receive 7.5 percent of all collections; after that time it will receive 5 percent of collections.
7. Through 1979, 0.75 percent goes to the County Land Planning Account; after then, that account will receive 0.5 percent of collections.
8. Through 1979, the Renewable Resource Development Account receives 1.875 percent of collections. After that time, 1.25 percent.
9. Through June 30, 1979, parks acquisition operation and management receives 1.875 percent of collections. From

Montana/New Mexico

July 1, 1979 to December 31, 1979, 3.75 percent shall be allocated to this function, and following December 31, 1979, 2.5 percent.

10. All other revenues are deposited to the State general fund.

The same act established a Coal Board to make grants to local governments affected by coal development. The board has seven members all of whom are appointed by the Governor. Two are required to have expertise in school matters and two others must reside in coal impact areas.

Taxes imposed on mineral production in Montana are in addition to the ad valorem taxes due. Montana has a classified property tax system in which all property is put in one of 11 classes. All property, except mines and agricultural lands is assessed at 40 percent of full value. Local property taxes, however, are levied on taxable value which is determined by multiplying the assessed value by the particular rate associated with the property class. For class 1 property, which includes annual net proceeds of all mines except coal and metal mines, and the right of entry upon mining land, taxable value is 100 percent of market value. Gross proceeds from strip mines are assessed at 45 percent of full value, and proceeds from underground mines at 33-1/3 percent. The gross proceeds of metal mines are assessed at 3 percent [84:301, 84:302, 84:7907].

The 1975 legislature enacted a measure requiring any person intending to construct a new industrial facility, including a mining facility, to prepay on request an amount not to exceed three times the estimated property tax due the year the facility is completed. One-fifth of the amount prepaid will then be allowed as a credit against property taxes in each of the first 5 years of operation of the facility [C.H. 571, Laws of 1975].

New Mexico

New Mexico has an extensive and complicated mineral taxation system. In addition to the State taxes which must be paid by all firms, hard metal mining companies must pay a severance tax and a resource excise tax. Oil and natural gas producers are subject to a separate tax system. In 1977, the State received more than \$102 million in severance taxes, more than 17 percent of State tax revenues.

The severance tax, which underwent significant modifications in 1977, is levied on all natural resource products severed except oil and gas. The tax is based on the gross value of the product. For minerals other than potash, uranium, molybdenum, and coal, gross value is the sales value of the severed product at the first marketable point without deductions. For minerals with a posted or field price at the point of production, however, gross value is its posted field or market price, less the expenses of hoisting, crushing, and loading necessary to place the severed product in a marketable form in a marketable place. These deductions are limited to an amount less than 50 per-

cent of the gross sales price. For products that must be beneficiated, the gross value is the sales value after deducting freight charges from the point of severance to the point of first sale and the cost of beneficiation.

The gross value of potash and molybdenum is determined slightly differently. For potash, the gross value is 33-1/3 percent of the proceeds realized from the sale of muriate of potash and sulfate of potash magnesia, and 33-1/3 percent of the value of those products consumed in the production of other potash products, less 50 percent of the reported value as a deduction for the expense of loading, crushing, processing, and beneficiation. For molybdenum, the gross value is the value of the molybdenum contained in concentrates shipped from a mine site, less 50 percent of that value as a deduction for the expenses of hoisting, loading, crushing, and beneficiating [72:18.4(d)].

Minerals, then, are divided into classes and taxed at separate rates as follows:

<u>Class</u>	<u>Mineral</u>	<u>Tax rate (%)</u>
A	Potash	2.500
B	Copper	0.500
C	Timber	0.125
D	Pumice, gypsum, sand, gravel, clay, fluorspar, and other nonmetallic minerals	0.125
E	Gold, silver, manganese, lead, zinc, thorium, molybdenum, rare earth, and other metals	0.125

The severance tax on coal is levied on a per ton basis. Severance of steam coal is taxed at \$0.38 per ton, metallurgical coal at \$0.18 [72:18.6]. Uranium production is taxed according to the following schedule:

<u>Taxable value of U₃O₈</u>	<u>over but less than</u>	<u>Tax per pound</u>
\$ 0	\$ 5.00	1.0%
\$ 5.00	\$ 7.50	\$0.05 + 1.6% of excess over \$ 5.00
\$ 7.50	\$10.00	\$0.09 + 2.0% of excess over \$ 7.50
\$10.00	\$15.00	\$0.14 + 3.0% of excess over \$10.00
\$15.00	\$20.00	\$0.29 + 4.0% of excess over \$15.00
\$20.00	\$25.00	\$0.49 + 5.0% of excess over \$20.00
\$25.00	\$30.00	\$0.74 + 7.0% of excess over \$25.00
\$30.00	\$40.00	\$1.09 + 9.0% of excess over \$30.00
\$40.00	\$50.00	\$1.99 + 12.5% of excess over \$40.00
\$50.00		\$3.24

If, however, the taxpayer registers with the Department of Revenue an arms length contract entered into prior to January 1, 1977, which does not allow the taxpayer to obtain reimbursement for all of the additional taxes

New Mexico

imposed by this section, the severance tax on the material covered by that contract is 1.25 percent of the taxable value of each pound of U₃O₈ contained in and recovered from the uranium ore [72:18.7].

A resource excise tax is also levied on the severing of hard minerals. This tax is really three mutually exclusive taxes--a resources tax, a processors tax, and a service tax. For all resources except timber, molybdenum, and potash, the resources tax and the processors tax is 0.75 percent. For potash, the resources tax is 0.5 percent and the processors tax 0.125 percent. For timber, the resources tax is 0.75 percent and the processors tax 0.375 percent. For molybdenum, both the resources and the processors tax are 0.125 percent [72:16A.23,24]. In the case of both timber and potash, the tax is designed to encourage intrastate processing of the resource. The service tax is levied against natural resources severed or processed and owned by another individual which are not otherwise taxable. The tax is imposed at the same rate as the resources tax [72:16A.25].

Unlike many States, the mineral taxes in New Mexico are not levied in lieu of other State and local taxes. Any individual who sells nonrenewable natural resources other than for subsequent sale in the ordinary course of business or for use as an ingredient or component of a manufactured product is subject to the gross receipts and compensatory tax [72:16A.1-9].

Mineral property is not exempt from the ad valorem tax in New Mexico either. Mineral properties, other than those producing potash or uranium, are classified as class one nonproducing mineral property if they are held under private ownership and known to contain commercially workable minerals, but are not presently being mined. Class one producing mineral property is property meeting the requirements for class one nonproducing mineral property, except that it is being mined. Class two mineral property is defined as minerals taken from property where the United States holds the mineral rights.

Class one productive mineral property is valued at 300 percent of the annual net production value of the property [72:29.12]. The surface value for agricultural or other purposes also is included when the surface interest is held by the same owners as the mineral rights.

Class one nonproductive mineral property is valued for ad valorem tax purposes by applying a per acre value determined by the Department of Revenue to the surface areas of the property. This per acre value is to be based on the bonus bids accepted by the Commissioner of Public Lands for the latest period in which bids were accepted for the sale of mineral leases.

Class two mineral property is valued at an amount equal to 300 percent of the annual net production [72:19.14].

Oil and gas production in New Mexico is subject to a different set of taxes. The State has imposed an oil and gas severance tax [72:19], an oil and gas privilege tax [72:21.4], and an oil and gas equipment tax [72:22, 72:24]. The oil and gas severance tax was modified in 1977. The tax is now \$0.05 on each 1,000 cubic feet of natural gas produced at a pressure base of

15.025 pounds per square inch absolute and at a temperature base of 60° F. Oil and liquid hydrocarbons removed from natural gas at or near the wellhead are taxed at \$0.45 per standard barrel [72:19.4].

Taxpayers liable for the payment of additional oil and gas taxes imposed by this section are entitled to a credit against the tax if they entered into a contract prior to January 1, 1977, for the sale of oil or gas and that contract does not allow the taxpayer to obtain reimbursement for any additional taxes imposed. The credit is equal to the amount of increased taxes for which the taxpayer is not reimbursed.

The 1977 New Mexico Legislature also enacted a severance surtax on uranium, coal, oil, natural gas, and other liquid hydrocarbons. The surtax on uranium applies only to U_3O_8 with a taxable value exceeding \$50 per pound. This surtax rate is computed by multiplying the dollar amount of the tax per pound by 25 percent of the percentage rise in the consumer price index for the previous year.

For coal, oil, natural gas, and other liquid hydrocarbons the surtax is equal to the unit amount of severance tax multiplied by the percentage increase in the consumer price index from 1976 to the present calendar year.

Finally, the State applies an oil and gas production tax in place of an ad valorem property tax. The tax is imposed on the assessed value of production which is an amount equal to 150 percent of the value of the products after deducting royalties paid to the United States, the State, or any Indian tribe and a reasonable expense for trucking to the first place of market. Assessed value is determined by applying the uniform assessment ratio to the taxable value of the product [72:22.4].

North Dakota

North Dakota has a gross production tax on oil and natural gas and a severance tax on coal. In 1977, these taxes produced more than \$15.4 million or slightly more than 5.2 percent of total tax revenues.

The gross production tax on oil and gas is levied at 5 percent of the gross value of production at the well [57:51.02]. This tax is in lieu of all ad valorem taxes imposed by the State, counties, cities, townships, school districts, and other taxing jurisdictions on the property rights attached to producing oil or gas, upon machinery or equipment used in the production of gas or oil, or on the gas or oil produced [57:51.03].

One percent of the gross value of the gas and oil at the well (20 percent of the tax revenue) is credited to the State's general fund. The remaining 80 percent of the production tax revenue is divided as follows:

1. The first \$200,000 of revenue from each county is divided with 75 percent going to the county and 25 percent to the State's general fund.

North Dakota

2. The second \$200,000 of revenue from each county is divided with 50 percent going to the county and 50 percent to the State.
3. All annual revenue above \$400,000 produced in any county is allocated 25 percent to the county and 75 percent to the State's general fund.

Forty percent of all revenues allocated to each county is to be credited to the county road and bridge funds. However, the county commissioners may use this money for projects dealing with the control and utilization of water resources. Forty-five percent of all revenues allocated to any county shall be apportioned to the school districts on a basis of average daily attendance. Fifteen percent of all revenues allocated to the counties shall be paid to the incorporated cities of the county based on the population of the cities [57:51.15].

In 1975, the legislature placed a severance tax on coal and provided that a portion of the funds collected be available to assist local governments feeling the impacts of development. This tax, which was to have a life of only 2 years, was reenacted in 1977. Coal mining is now taxed at a rate of 65 cents per ton, plus an additional 1 cent per ton for each point the wholesale price index increases from its June 1977 base. This tax is in lieu of any sales or use taxes collected on the sale of coal. It is not in lieu of ad valorem taxes on the mine site, however [57:61.01].

All money collected from the severance tax on coal goes to a specially created Coal Development Fund. The funds deposited in the fund are to be apportioned according to the following formula [57:62.02]:

1. Thirty-five percent of the funds are credited to a special fund for distribution through grants by the Coal Development Impact Office to affected cities, counties, school districts, and other taxing districts. Funds available are limited to the amount appropriated biennially by the legislature.
2. Fifteen percent of the revenue is to be credited to a special fund to be held in trust by the State Treasury and administered by the Board of University and School Lands. This fund is to be available for loans to affected units of local government. Before making a loan, however, the Board of University and School Lands must receive the recommendation of the Coal Development Impact Office. The board has the power to prescribe the terms and conditions of these loans, and it is to require a warrant from the unit of local government as evidence of the loan. The warrants are to bear interest at a rate not exceeding 6 percent, and are to be payable only from money allocated from the Coal Development Fund to the borrower. The warrants are not to be considered a general obligation of the local govern-

ment, nor shall they be considered as indebtedness of the unit of government. If the future allocation of money to the borrowing unit of government ceases, the loan shall be canceled.

Funds not loaned may be invested by the Board of University and School Lands as provided by law. The income, including interest payments on loans, is to be deposited in the State's general fund. Loan principal payments are to be redeposited in the trust fund.

3. Twenty percent of the revenue is to be allocated to the coal producing counties in proportion to the number of tons of coal produced in each county. Within the county, the allocation is to be distributed as follows:

- a. 30 percent to incorporated cities of the county based upon the population of each city,
- b. 40 percent to the county government, and
- c. 30 percent to school districts in the county apportioned on an average daily membership basis.

4. Thirty percent of the revenue is deposited in the State's general fund.

The same act created a Coal Development Impact Office, the director of which is appointed by the Governor. The office is empowered to develop a plan to provide financial assistance to local governments in coal development impact areas, to study and report to the Governor and the legislature on the impact of coal development on local government, to establish procedures and provide proper forms for use in making application for funds for impact assistance, and to make grants to counties, cities, school districts, and other taxing districts. In determining the size of the grant for which a political subdivision is eligible, that revenue is considered which the local government will receive from taxes on the real property of coal development plants and from other tax or fund distribution [Ch. 563, Sec. 14.4].

The 1975 legislature also levied a tax on coal conversion facilities, in lieu of an ad valorem tax on any of the property except the land on which the facility is located. This tax is designed to provide additional revenue for communities where thermogenerating plants or plants that convert coal from its natural form into a substantially different form will be located.

The tax is levied at a rate of 2.5 percent of gross receipts for facilities other than gasification plants or electrical generating plants. Gasification plants are taxed at 10 cents per 1,000 cubic feet of gas produced or 2.5 percent of gross receipts, whichever is greater. For electrical generating plants, the tax is 0.25 mill per kilowatthour produced.

North Dakota/Ohio/Oklahoma

The proceeds from the coal conversion tax on each facility are apportioned 65 percent to the State's general fund and 35 percent to the county in which the plant was located. The amount received by each county is apportioned as follows:

1. Thirty percent is divided among all incorporated cities in the county according to the population of each as shown by the last regular or special census.
2. Forty percent is deposited in the county's general fund.
3. Thirty percent is divided among all school districts in the county on the basis of average daily membership.

Ohio

In 1971, Ohio enacted a tax on the severance of certain natural resources to provide revenue necessary to meet the environmental management needs of the State and the reclamation of land affected by strip mining [5749:02]. In 1977, the State received slightly less than \$4 million from this tax.

The mineral tax is levied at a fixed rate per ton according to the following schedule: 4 cents for coal; 4 cents for salt; 1 cent for limestone and dolomite; and 1 cent for sand and gravel. Oil is taxed at 3 cents per barrel and natural gas at 1 cent per 1,000 cubic feet. Although the money collected through these taxes is for strip mine reclamation and environmental protection, the revenue goes directly to the State's general fund.

In 1975, as part of the legislation establishing a State energy office, coal conversion facilities were exempted from corporate taxes and personal property taxes for up to 30 years [5709:35]. Under the provisions of this section, a coal conversion facility was defined to be a gasification plant built under the auspices of the Federal Government, pursuant to a contract with the Energy Research and Development Agency, now part of the Department of Energy [5709:30].

Oklahoma

Oklahoma levies production taxes on oil, natural gas, and several other minerals. The tax yielded more than \$191 million or about 16.7 percent of total State tax revenues in 1977.

Every person engaged in the production or mining of: asphalt; petroleum; natural gas; or ores bearing lead, zinc, jack, gold, silver, or copper is liable for the severance tax. The tax is levied at a rate of 0.75 percent on the gross value of asphalt and ores bearing the above minerals and 7 percent on the gross value of petroleum and natural gas [68:1001]. However, the first \$150 in gross sales each month from each well producing less than 3 barrels of

petroleum a day or less than 1.5 million cubic feet of natural gas per month is taxed at 5 percent [68:1023]. Uranium-bearing ore is taxed at 5 percent of gross value [68:1020].. These taxes are in lieu of all taxes by the State, counties, cities, towns, school districts, and other taxing districts on any property rights to any of the above minerals [68:1001(f)].

The State Board of Equalization has the power under its own initiative, or at the request of any person who claims his tax is too great, to conduct a hearing to determine if the tax levied is greater than the ad valorem property tax would be if it were levied on all mineral rights and personal property connected with the mining operation. The board has the power to raise or lower the severance tax rate to conform to the level of the ad valorem property tax [68:1001(h)].

The State also levies an oil excise tax of 0.25 cent per barrel of oil produced and 0.05 cent per 1,000 cubic feet of gas produced. The gross production tax is apportioned as follows:

1. Seventy-eight percent of the taxes collected on oil, asphalt, or ores bearing uranium, lead, zinc, jack, gold, silver, or copper goes to the State's general fund.
2. Seventy-eight percent of taxes collected on natural gas is distributed among funds as directed by the Oklahoma State Teachers Retirement System.
3. One-tenth of the sum collected from each county is returned to the county treasury to be credited to the County Highway Fund.
4. One-tenth of the sum collected from each county is paid to the county treasurer of the county and credited by him on the basis of average daily attendance to the school districts of the county, provided that the district makes an ad valorem levy of at least 15 mills per year and maintains 12 years of instruction.
5. Two percent of all moneys is placed to the credit of the Oklahoma Tax Commission Fund.

In 1977, the Oklahoma Legislature enacted a conservation tax on natural gas and casinghead gas. The tax is levied at 7 cents per 1,000 cubic feet, less 7 percent of the gross value of each 1,000 cubic feet of gas; provided that this tax shall not exceed one-third the gross value of the natural gas [68:1108]. Ten percent of the receipts from this tax goes to a Special Conservation Fund to be spent pursuant to legislative appropriation. Ninety percent of the tax receipts goes to the Oklahoma Public Employee's Retirement Fund.

South Dakota

South Dakota

The 1974 South Dakota Legislature approved a license tax on the privilege of mining or extracting mineral products in the State. In 1977, the State received slightly more than \$500,000 from this source. The license fee, which is really a net production tax, is 4 percent of the net profits from minerals or mineral products mined or extracted [10:39.25]. The law exempts any person mining or extracting minerals worth less than \$100,000 per year.

Net profits are obtained by subtracting the following costs from the gross yield of the business [10:39.26];

1. The cost of extracting the mineral from the mine.
2. The cost of transporting the mineral or mineral product from the mine to the place of reduction, refining, and sale.
3. The costs of reduction, refining, and sale.
4. The cost of marketing and delivering the products and the conversion of the same into money.
5. The costs of maintaining and repairing: all mine machinery, equipment, and facilities; all milling, smelting, and reduction works and plants; all transportation facilities and equipment; and general administrative buildings and facilities within the State.
6. All interest costs and all insurance costs paid or accrued, and payments into pension and profit-sharing trusts and employee welfare.
7. Depreciation on the cost of machinery, equipment, apparatus works, plants, and facilities mentioned in number 5 above.
8. The cost of development and exploration in or about the mine or upon a group of mines when operated as a unit.
9. All State and local taxes.
10. General administrative expenses incurred within South Dakota.

The payment of this tax is in lieu of all other occupational excise, income, privilege, and franchise taxes levied by the State, but is not in lieu of sales, use, and property taxes [10:39.40].

The State also levies a severance tax on the production of oil and natural gas. The tax is levied at 3 percent of the gross value produced and sold at the wellhead. This tax is in lieu of the license tax on the privilege

of mining in the State as well as all other taxes except sales, use, and property taxes [10:39A.4].

Tennessee

Tennessee levies a production tax on oil and natural gas and a severance tax on coal. The production tax on oil is 5 cents per 50-gallon barrel of crude oil. For natural gas, the tax is 5 percent of the sales price of the gas sold [60:116]. Proceeds from these taxes go the State's general fund. Counties and other local governments are prohibited from levying a similar tax.

In 1974, Tennessee began levying a severance tax on coal. All coal severed from the ground by any means is taxed at a rate of 20 cents per ton [67:5902]. All revenue collected under this tax, less 1 percent to cover administrative and collection expenses, is returned to the counties in which the collection is made. One-half of the revenue returned goes to the educational system of the county. The other half goes for highway maintenance and water pollution control [67:5906].

Texas

The gross value of minerals extracted in Texas is larger than that of any other State. The revenues from severance taxes on oil, natural gas, and sulfur are also much larger than those of any other State. In 1977, the State received more than \$905 million from this source, approximately 19 percent of the State's tax revenue.

An occupation tax on the business of producing natural gas has been in effect since 1931. The tax is 7.5 percent of the market value of the gas produced [3:01(1) Gen. Tax]. Revenue from this tax is distributed as follows: 0.5 percent for administration and enforcement, 25 percent of net revenues to the available school fund, and 75 percent of net revenue to the Omnibus Tax Clearance Fund, no portion of which can be allocated to any other fund until the needs of the Medical Fund have been fully met [3:02].

Since 1933, Texas has also levied an occupation tax on the business of producing oil in the State. The tax rate is 4.6 percent of gross value.

The State has also levied a tax on sulfur producers since 1930. This tax is levied at \$1.03 per long ton of sulfur [5:01].

Utah

Utah collects severance taxes on metals, oil, and natural gas. In 1977, the State received more than \$8.9 million from this revenue source, about 1.5 percent of the State's tax revenue.

The most important source of revenue is the State's mining occupation tax. Every person engaged in mining or extracting ore or metal containing gold, silver, copper, lead, iron, zinc, tungsten, uranium, or other valuable metal

Utah/West Virginia

in the State must pay an occupation tax equal to 1 percent of the gross amount received for the product. For oil, gas, or other hydrocarbons the occupation tax is 2 percent of value. The law provides for an annual exemption from payment of the occupation tax for the first \$50,000 in gross value from each mine or well [59:5.67]. The taxes collected under this provision go to the general fund [59:5.84].

In 1975, the legislature took steps to minimize the impact of future resource development on local communities. The legislature recognized that:

1. The development and utilization of natural resources in the State, particularly in rural areas, may have a significant financial impact on State agencies, local communities, and government unless financing is available so that necessary public works and improvements can be provided.
2. That it may be necessary and in the public interest of the State to provide through utilization of prepaid sales or use taxes funds for these necessary public works and improvements.
3. These necessary public works and improvements may in part be of benefit primarily to the person developing or utilizing the natural resource in this State [63:51.1].

As a result, the legislature provided that any person engaged in the development of a resource facility may prepay all or a portion of the sales taxes anticipated with the construction of the facility, including sales or use taxes anticipated to be imposed upon contractors, agents, and subcontractors [63:51.3]. All revenues collected under this provision go to a prepaid sales and use tax construction account. This account is to be used to finance State-related public improvements including but not limited to highways and related facilities and schools and related facilities [63:51.5].

Funds for construction of the facilities needed as a result of the development of natural resources shall be appropriated by the legislature to the State Board of Education and the State Road Commission [63:51.6]. Appropriations to the school fund shall be returned to the State's general fund by the school district in which the new facility is located within 6 years after the facility is completed.

West Virginia

The West Virginia tax structure relies heavily on a series of annual taxes on the privilege of doing business in the State. The extraction of coal and other natural resources is one of the occupations covered under this tax, which is really a gross production tax.

The gross product of miners is taxed at the following rates: 3.5 percent for coal; 2.2 percent for limestone or sandstone; 4.34 percent for oil;

8.63 percent for natural gas in excess of the value of \$5,000; 4.31 percent for blast furnace slag; 4.34 percent for sand, gravel, or mineral products not quarried or mined; and 2.86 percent for other natural resource products [11:13.2a].

In 1975, an additional tax on the severance of coal was enacted. This act added an additional 0.35 percent to the tax previously imposed. Seventy-five percent of the net proceeds of this additional tax is distributed to the counties where coal is mined in proportion to the total coal production of the county. The remaining 25 percent of the net proceeds is deposited in the county and municipal fund [11:13.2f].

Wisconsin

The 1977 Wisconsin Legislature enacted a single comprehensive net proceeds tax with a progressive rate schedule for all metallic mineral mining. This tax replaced previously existing taxes on the mining of low-grade iron ore and copper. The taxes in place in 1976 produced \$184,930 in State revenues.

In Wisconsin, taxable net proceeds are computed as follows [70:375.4]:

1. Gross proceeds are equal to the company's production of ore or ore concentrate during the taxable year multiplied by the appropriate price. For taconite pellets, copper, lead, zinc, silver, and gold, the price is computed from the monthly prices published in the Engineering and Mining Journal. For other metallic minerals or other forms of metallic minerals the price is determined administratively by the Secretary of Revenue [70:375.3].
2. Net proceeds is then gross proceeds less deductions for expenses incurred by the mining company in converting the ore in the ground to the product to which the published price applies. Deductions allowed include:
 - a. costs of labor, tools, appliances, and supplies used in mining,
 - b. costs of transporting, milling, reducing, assaying, and sampling the ore,
 - c. expenses for administration, accounting, appraising, legal, medical, engineering, clerical, and technical services directly related to mining in the State,
 - d. expenses related to repair and maintenance,
 - e. general and personal property taxes,

Wisconsin

- f. rents paid on personal property used in mining,
- g. costs of employee relocation within the State,
- h. premiums for bonds required by State law,
- i. premiums for insurance on persons or tangible assets,
- j. losses from uninsured casualty losses and the sale of personal property used in mining,
- k. straight-line depreciation on machinery, mill, and reduction works, buildings, structures, and permit fees, license fees, and other fees required by the State.

Net proceeds, as calculated above, is then subject to tax at the following rates:

<u>Net proceeds</u>	<u>Tax rate (%)</u>
\$ 0 to \$ 100,000	no tax
\$ 100,001 to \$ 4,000,000	6
\$ 4,000,001 to \$10,000,000	12
\$10,000,001 to \$20,000,000	16
\$20,000,001 to \$30,000,000	18
over \$30,000,000	20

Fifty percent of the revenue from the net proceeds tax goes to the State's general fund. The other 50 percent goes to the Investment and Local Impact Fund. Of the money going to the Investment and Local Impact Fund, 20 percent or \$300,000—whichever is less—goes to the county in which the minerals were extracted. The city, town, or village where extraction occurred receives 10 percent or \$75,000, whichever is less. School districts incurring costs attributable to mining are eligible for assistance on a case-by-case basis [70:395.2(d)].

The Investment and Local Impact Fund is administered by a special board attached to the Department of Revenue for administrative purposes, but with independent administrative rulemaking authority. The board has eight members including the Secretary of Local Affairs and Development, the Secretary of Revenue, two public members, two municipal officials, one county official, and one school board member. The members are appointed by the Governor for staggered 4-year terms. One public member and one local official must reside in a county or school district where mineral development is occurring, or in an adjacent county or school district. One local official must live in a county or school district where mineral extraction is occurring, or an adjacent district. Provisions exist requiring recommendation of the local officials by the appropriate professional associations [15:435.1(b)].

The Board's duties, in addition to making the guaranteed payments to counties, towns, villages, and cities, include certifying the eligibility of school districts for assistance and making discretionary payments to counties and municipalities. The Board's power in this area is limited, however, since the statutes establish both a priority system and a list of the types of projects eligible for funding under the priority system. Payments are made first to those counties, cities, towns, villages, and school districts in which minerals are extracted or were extracted within the last 3 years, or in which a mining permit has been issued. Distribution is next made to municipalities adjacent to municipalities where minerals are being extracted. Lowest priority is assigned to distributions to municipalities in which minerals are not extracted and which are not adjacent to municipalities in which minerals are being extracted.

Purposes for which the Board may make discretionary payments include:

1. Protective services, such as fire and police.
2. Highway repair or construction necessitated by the construction or operation of the mining facility.
3. Studies and projects for local development.
4. Monitoring the effects of the mine on the environment.
5. Extraordinary community services and facilities necessitated by the mining activity.
6. Legal counsel and technical consultants to represent and assist municipalities appearing before State agencies on matters relating to mining.
7. Other expenses associated with the construction and operation of the mining facility.
8. The preparation of areawide community service plans.
9. Provision of educational services in a school district.
10. Expenses attributable to a permanent or temporary shutdown of a mine, including costs of retraining and the cost of operating a job referral service.

Tax revenues going to the Local Impact and Investment Fund not distributed to local units of government are to be invested by the Board. The Board also has the responsibility for distributing Federal mining revenue received by the State from sales, royalties, bonuses, and rentals of Federal land.

Wyoming

Wyoming

Wyoming levies an oil and gas production tax, a coal severance tax, and a mining excise tax. The gross proceeds from all mines also are included in the State and local property tax base. The special mineral taxes produced nearly \$47 million during fiscal 1977, or more than 20 percent of State tax revenues.

The Wyoming Legislature passed an extensive series of bills designed to reduce local fiscal impact of new development. The program includes the issuance of revenue bonds to finance a State community development authority, a special coal tax for impact assistance, and an industrial development information and siting act which forbids issuing a permit for the construction and operation of the facility if a means of alleviating negative impacts is not specified.¹⁹

The Wyoming Community Development Authority was created and authorized to issue up to \$100 million of revenue bonds so that the State can provide assistance in areas where there have been major development impacts and where needed facilities and services cannot be financed through existing sources.

This program is unique because it has the power to make loans to the private sector to provide financial institutions in the affected area with additional mortgage money as well as the power to loan to public agencies. Because the Community Development Authority has the power to set terms for repayment of loans to local governments, the act may serve as a way of channeling new funds into the local community during the early stages of the development. A court test of the constitutionality of this act has been initiated at the request of the State. Consequently, applications for funds will not be accepted for at least 1 year.

The Wyoming Community Development Program has several advantages over the coal impact board programs used in other States. It allows the mobilization of a considerable amount of capital relatively quickly—not dependent on the actual mineral production in the State—and it allows some aid to the private sector in communities feeling the impact. The \$100 million of funds made available for impact assistance appears more likely to be an adequate amount than that provided in other States. However, the community has no certainty about receiving funds. There could be considerable delay before the loan is granted, depending on the action of the Community Development Authority.

The most important tax is the mining excise tax. This tax is levied at 2 percent of the value of the gross product extracted for gold, silver, other precious metals, soda, saline, coal, petroleum or other crude mineral oil,

¹⁹ A detailed review of all the legislation dealing with the economic impacts of energy development in Wyoming is in Hayen and Watts, op. cit., pp. 57-74.

and natural gas. Revenues from this tax go to the State's general fund [39:6.302].

In addition, the extraction of coal, uranium, trona, oil, and natural gas are subject to several other excise taxes. The rates and the disposition of the revenues are given below [39:6.303]:

<u>Minerals</u>	<u>Tax rate (%)</u>	<u>Disposition of revenues</u>
Coal, uranium, trona, oil, natural gas, oil shale	2.0	Wyoming Mineral Trust Fund
Coal, uranium, trona	1.5	Capital Facilities Revenue Account
Coal	1.0	Highway Fund
Coal	1.5	Water Development Account
Coal	2.0	Impact Tax Revenue Account
Coal	0.5	Wyoming Mineral Trust Fund

The tax going to the Capital Facilities Account will expire on January 1 following the year in which the taxes collected total \$250 million. The tax going to the Impact Tax Revenue Account is to expire on January 1 of the year following that in which total tax collections from this tax total \$160 million [39:6.303(b)].

The distribution of the revenues obtained from the special severance tax is under the jurisdiction of the Farm Loan Board. Revenue is to be used to assist in areas affected by the production of coal. At least 50 percent of the revenue must be used for highways and streets, while the remainder may be used for water and sewer projects. The Board has complete freedom in the choice of terms for the grants or loans.

An oil and gas production tax is levied on the value of the well of all oil and gas produced, saved, sold, or transported. This tax may not exceed 0.4 mill per dollar of value [30:5.116].